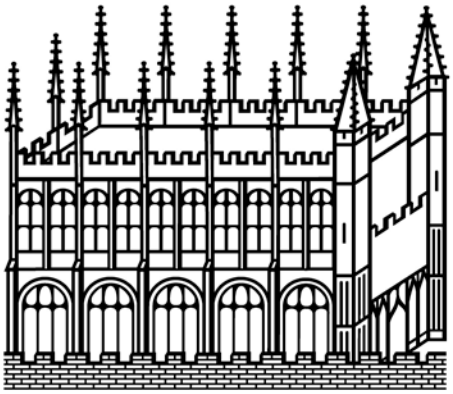

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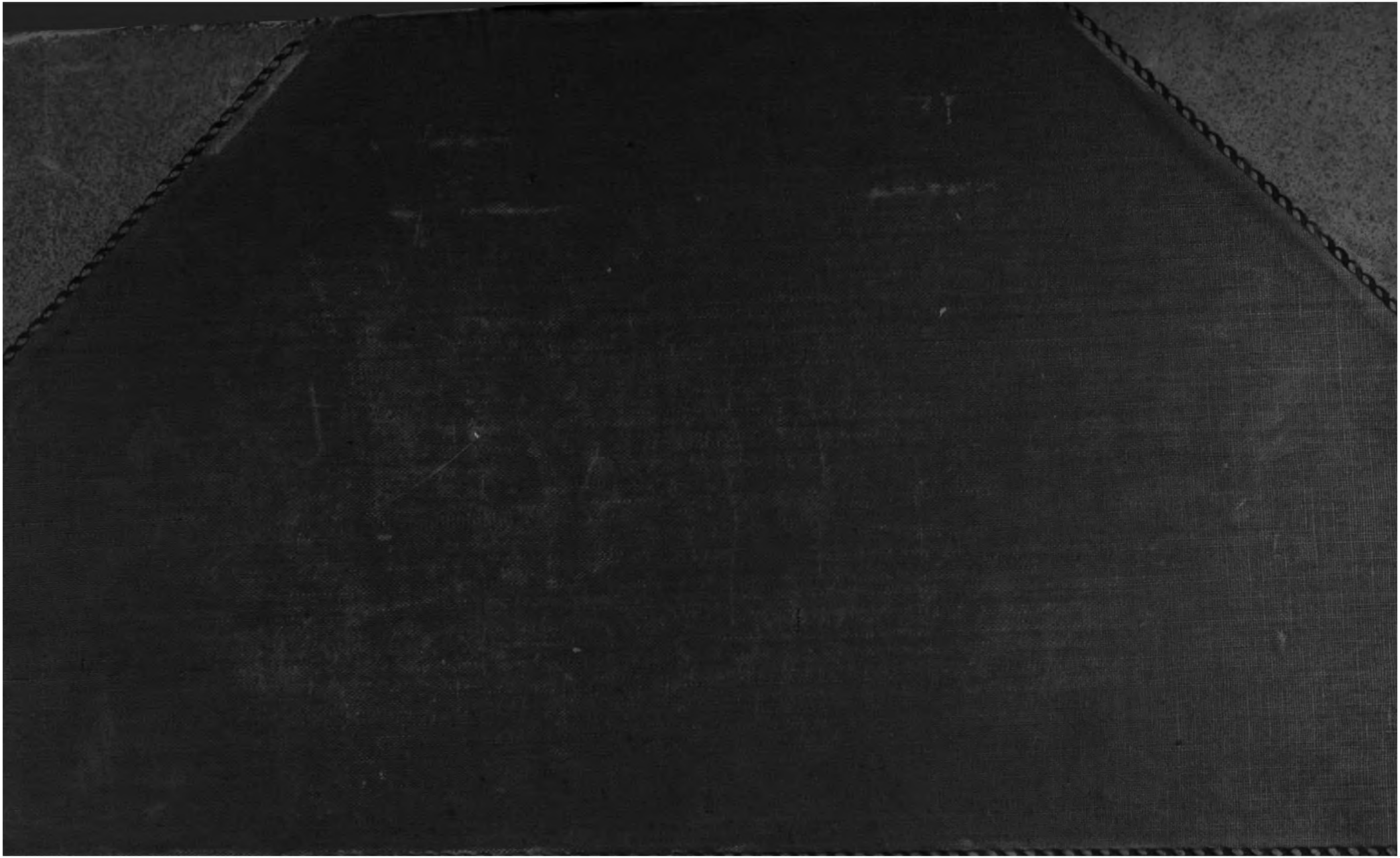

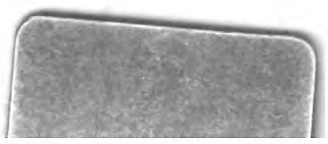

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ON THE DIAGNOSIS AND TREATMENT OF THE SO-CALLED PSORIASIS SYPHILITICA.

By Dr. M'CALL ANDERSON,

LECTURER ON PRACTICE OF MEDICINE IN ANDERSON'S UNIVERSITY, PHYSICIAN TO THE DISPENSARY FOR SKIN DISEASES, ETC., GLASGOW.

THERE seems little reason to doubt that the want of success which so frequently attends the treatment of diseases of the skin is due, not so much to an ignorance of the class of remedies serviceable in the treatment of cutaneous affections generally, as to the use of these remedies in improper cases or stages; or, in other words, to errors of diagnosis.

There can be no doubt that the two greatest difficulties in the diagnosis of skin diseases are, to distinguish a syphilitic affection of the skin from one which is not syphilitic, and to distinguish scabies from an itching skin disease which is independent of the itch-insect, or *vice versâ*. Hence, when scabies occurs in the subject of a syphilitic eruption, the diagnosis may be extremely difficult, as in the following case:—

A gentleman had an eruption on his skin, supposed to be non-syphilitic psoriasis, and treated by his medical attendant by arsenic, but to no purpose. I was accordingly requested by the latter to give him my opinion of the case. It was evident that the eruption was itchy, for a pruriginous eruption was detected, and while psoriasis is sometimes accompanied by much irritation, the situation of the pruriginous eruption, which was most abundant on the front of the forearms, inner aspect of the thighs, and lower portion of the abdomen, led me to suspect scabies. I accordingly searched for and found a female acarus embedded in the extremity of one of the canals which that parasite digs in order to lay its eggs. There could be no doubt, therefore, that the patient was labouring under scabies; but it was evidently not an ordinary case of scabies, for a number of patches covered with silvery scales, such as are not usual in this complaint, were detected. These patches were not, however, on the usual sites of non-syphilitica psoriasis, and they had, besides, a decidedly coppery hue, which led me to make inquiry into the history of the case. I was told that a few months before I saw the patient he had a sore on his penis, followed by enlargement of the glands in the groins, and on examining him I detected a marked tendency to falling of the hair from atrophy of their bulbs, superficial syphilitic ulceration of the throat, and enlargement of the posterior cervical glands; in fact, the usual concomitant symptoms of a secondary syphilitic eruption. An outward treatment was adopted for the cure of the scabies, and a mercurial course for the removal of the psoriasis, and in a short time his skin was completely free from irritation and eruption.

Most of the cutaneous manifestations of syphilis are named from their resemblance to non-syphilitic eruptions, and so it is with regard to the so-called psoriasis syphilitica. Every scaly syphilitic eruption which resembles non-syphilitic psoriasis is termed psoriasis syphilitica. The latter is not usually a primary affection of the skin, but occurs as a second stage of many of the others. Thus, in the second stage of a papular syphilitic eruption (the so-called lichen syphiliticus), desquamation of their summits takes place, and the scales may have a silvery appearance much resembling non-syphilitic psoriasis guttata. This is one of the varieties of syphilitic psoriasis.

Again, in cases of rupia syphilitica, after the crusts due to the desiccation of the pus have fallen off, circular copper patches are left, which are often covered with silvery scales resembling very closely non-syphilitic psoriasis. Here we have another variety of psoriasis syphilitica. A case of this kind was lately exhibited by Dr. Gairdner at a meeting of the Medico-Chirurgical Society of Glasgow, the disease having originally had all the characters of syphilitic rupia, but at the time it was shown having the appearance of psoriasis, and one of the members could not understand how a disease could be rupia at one time, and psoriasis at another, having never taken into account the circumstance that syphilitic psoriasis is, in most instances, merely a second stage of another form of syphilis, and named psoriasis for convenience of description. So much for the relation which syphilitic psoriasis bears to the other cutaneous manifestations of syphilitis.

Now, if it be true, as I hold it to be—that all syphilitic skin affections which resemble non-syphilitic psoriasis constitute the so-called psoriasis syphilitica, it follows, of course, that the disease which is most likely to be mistaken for it is non-syphilitic psoriasis, and further that the diagnosis is sometimes extremely difficult. Of the frequency of such an error, too many illustrations have come under my observation, for not only have I often been consulted by

patients labouring under specific psoriasis, who have had long courses of arsenic on the supposition that the complaint was psoriasis vulgaris, but I have unfortunately, with even greater frequency, seen cases of psoriasis vulgaris, which had been treated by mercury to the extent of profuse salivation, on the supposition that they were syphilitic in their nature.

Such being the case, I offer no apology for appending the following table, which serves to illustrate the salient points of difference between these two affections :—

DIAGNOSIS OF SYPHILITIC FROM NON-SYPHILITIC PSORIASIS.

Syphilitic Psoriasis.	*Non-syphilitic Psoriasis.*
1. Eruption not usually very extensive.	1. Eruption sometimes covers the greater portion of the skin.
2. Usually occurs as a second stage of some other form of syphilitic eruption.	2. The patches assume the characters of psoriasis from the very first.
3. Some of the patches may be moist, or covered with crusts, or even in a state of ulceration.	3. A dry eruption throughout.
4. Patches usually small, and in the shape of round spots or patches, or circles, or segments of circles.	4. Patches often small, and circular, but frequently very large and irregular.
5. Eruption not usually on the elbows and knees ; more on the inner than the outer aspect of limbs. When limited to soles or palms, always syphilitic.	5. Eruption on any part of the body, but *almost* invariably on the elbows or knees also.
6. Eruption in the chronic stage usually *distinctly* coppery in tint.	6. Patches of a dusky-red, or *light* coppery tint.
7. Scales thin ; not so imbricated ; often grayish.	7. Scales thick, imbricated, white, and silvery.
8. Rarely itchy.	8. Sometimes not itchy, occasionally intolerably itchy ; generally slightly so, especially when new patches appearing.
9. May last months, or even a year or more, when no treatment employed.	9. Often of five, ten, fifteen, twenty, or thirty years' duration, or even lasts almost a whole lifetime.
10. Almost always commences after puberty, and usually after twenty.	10. Many cases commence before puberty.
11. Can often be traced to a hard chancre.	11. Can often be traced to hereditary taint.
12. Patient *may* be cachectic, and concomitant symptoms detected ; *e.g.*, roseola syphilitica, lichen syphiliticus, condylomata, sore-throat, alopecia, &c.	12. Patient generally in comparatively good health, with the exception of the eruption.
13. Removed almost invariably by mercury.	13. In the majority of cases removable partially or entirely by arsenic or tar.
14. A relapse not usual after *all trace* of the first eruption has *completely* disappeared.	14. Relapses are the rule, and are often very numerous.

It must always be borne in mind that there is no reason why a patient labouring under syphilis, may not, at the same time, be affected with non-syphilitic psoriasis. But should such cases be observed, and they are not very uncommon, a remembrance of the possibility of such an occurrence should prevent error, especially as it will usually be found that the date of appearance of the non-syphilitic psoriasis does not correspond with the date of appearance of the manifestations of syphilis.

The promulgation of extreme views in medicine, as in everything else, is much to be regretted, and I must confess to having little sympathy with the so-called non-mercurialists, except in so far as they have tended to check the immoderate and indiscriminate use of mercury. For no one who has had much experience of the treatment of the cutaneous manifestations of syphilis can have failed to observe the almost magical rapidity with which they generally yield to it ; indeed, if this remedy is to be withheld, I, for one, know not how we are to combat successfully, that too numerous class of skin affections, dependent directly or indirectly upon the syphilitic taint. It is not, however, to be inferred from this, that every syphilitic skin affection is to be treated in a routine way with mercury. Thus, we must be much more cautious in the use of it when suppuration and ulceration are prominent features of the complaint, for it is a well-established law that syphilitic eruptions are generally of a dry nature in good constitutions, while there is a tendency to suppuration and ulceration in bad ones, or when the health of the patient, no matter from what cause, has been much deteriorated.

Further, it may be remarked, that with the above exception, the constitutional treatment of syphilitic skin disease, depends, not so much upon the appearance which it presents, as upon the general health of the patient, and upon the stage of the disease, iodide of potassium being much more effectual in the later than in the earlier stages of the disease, and mercury being much more frequently indicated in the former, though often of great value in the latter.

In the general treatment of psoriasis syphilitica, if the constitution is bad, the general health must be carefully attended to, cod-liver oil, tonics, such as cinchona and iron, and iodide of potassium,* in full doses, being especially useful. If, on the other hand, the constitution is good, and there is no debility apart from that which is the direct result of the poison in the blood, the patient may safely be put fully under the influence of mercury, the gums being kept *gently* touched for two or three weeks if necessary.

There seems no reason to doubt, however, that in the treatment of the cutaneous manifestations of syphilis, the constitutional is too universally employed to the exclusion of local treatment, which is often sufficient of itself to effect their removal. It is unnecessary to insist on the great value, in this respect, of the mercurial vapour bath, this method of treatment having been so prominently brought under the notice of the profession by Mr. Henry Lee. These baths may be taken every second day, and they possess this advantage over constitutional treatment, that they act directly upon the affected parts, and do not, except in rare cases, give rise to salivation, even when continued for a considerable time. They may, accordingly, be used with advantage in combination with constitutional treatment of a tonic and strengthening character, even in debilitated and strumous subjects.

A more valuable method of treatment even than the mercurial vapour-bath for the removal of the eruption under consideration is an ointment containing calomel, as in the following formula :—

℞ Calomelanos, ʒi.
Glycerini amyli, ʒii.
Unguenti Rumicis, ʒv. ℿ.

Let a little of this be rubbed firmly into the patches night and morning. One of the mercurial ointments of the British Pharmacopœia may be used instead of the above, and often with advantage, as the unguentum hydrargyri ammonati, nitratis, iodidi rubri, &c. When these ointments are used, the patient should, in every case, be warned of the possibility of the absorption of the mercurial, to such an extent as to produce salivation, particularly if the eruption is extensive, and told to show himself at once, should there be any decided indication that the gums are touched.

While anti-syphilitic treatment is being carried out, the patient should, as a rule, avoid stimulants entirely, his diet being simple but nourishing, and after the eruption is completely gone, a course of tonics may be of great service, and a change of air when it can be accomplished.

* E.G. ℞ Ferri et ammoniæ citratis, ʒiii.
Potassii iodidi, ʒi.
Syrupi Zingiberis, ʒii.
Infusi. cascarillæ ad, ʒxxiv. ℿ.
Sig. A tablespoonful in a wineglassful of water thrice daily.

REPORT ON DISINFECTANTS.

By Dr. PROCTER, F.C.S.

(From the Report presented to the St. Andrews Graduates' Association.)

FACTS afford just reasons for concluding that the air is a medium by means of which diseases may be transmitted either by special germs or by the presence of organic matter undergoing putrefactive changes.

All the known phenomena concerned in the production of zymotic disease would point out the causes to be organic germs, diffusive, and in some cases at least, and under certain conditions, capable of being produced. If, then, the presence of organic matter, or the products of its changes, be the essential causes of a certain class of diseases, and if it be true that another class of infectious diseases are communicated by a special organic molecule, are there any means of destroying or arresting the changes in such bodies that their injurious influences may be stayed or prevented? Substances capable of effecting this object are disinfectants, and this they do in one of two ways. 1st. Either by preventing the compound from changing its original composition ; or, 2nd, by rapidly hastening its decay to innocuous material by a process of oxidation. To the former class the term antiseptic is applied, while the latter are known as disinfectants. Practically another class—fixative—may be added, such as Burnett's fluid, &c., which act by entering into combination with the offensive volatile products. Substances capable of destroying bad smells, deodorisers, are often considered synonymous with disinfectants, but this is not the case, for there is no evidence to show that any infectious disease is of necessity associated with odorous matter.

Oxygen, on account of its wide chemical affinity, is the great purifier of nature, and the great natural disinfectant, carried on most energetically by the allotropic form of ozone. When we imitate this wide process by artificial means, the action is complete, as exemplified by combustion, or by chemical agency. As disinfectants, it is to agents coming under the latter head that we have to deal ; their operation is exerted mainly upon the volatile products of decomposition, or at least do not appear to affect the true organic matter until all the former has been destroyed ; thus, a wide distinction exists between their action and antiseptics, which is specially to restrain chemical change in the organised structures.

Nitrous acid and chlorine are both oxidisers, the former by directly, the latter by indirectly, furnishing oxygen. The action of nitrous acid in the destruction of organic matter is very perfect, but its injurious action on the respiratory organs, and some other properties possessed by it, prevent the employment of this acid in inhabited dwellings.

Chlorine is an energetic destroyer of all organic substances from decay, liberating the nitrogen in a gaseous condition, and breaking up into simple forms ammoniacal, sulphuretted, phosphuretted, albuminous, and cyanogen compounds; but, at the same time, exercising its influence rather upon dead than living matter. An experiment of M. Crooke's illustrates this remark, in which he found that cheese mites, in a foul smelling solution, required a large quantity of chlorine to be added, often the solution was inodorus before they died, but when the mites were put in water, with nothing to divert its energy, they were killed by one-fourth less of the chlorine. As a gas it destroys all it attacks, but does not endow that which is left with any power of resisting decomposition. For rapid action in cases of great impurity, chlorine and some of its compounds are most valuable disinfectants, but unless used with care and caution, precisely the same objections exist to its use as to nitrous acid. If there is in an apartment chlorine enough in the air to give a faint smell, it is, in ordinary cases, sufficient to disinfect.

Iodine seems to be as powerful as chlorine, and admits of ready and graduated diffusion through a chamber, for sick rooms it is superior to the latter.

The alkaline permanganates, under the name of Condy's fluid, are substances which have been lately used extensively. They are extremely energetic oxidisers, but practically expensive. Their principal application is in the disinfection of liquid matter or impure water, and this, if of the most offensive character, is immediately deodorised by their agency, and the acquisition of purity shown by the colour, but it is doubtful whether they can be relied upon alone for the perfect removal of living matter.

Antiseptics or Colytics.—That there are a class of substances which have the power of preventing organic substances from undergoing chemical change, either by arresting catalysis or oxidation, or preventing other methods of decomposition, is undoubted, but at the same time it must be admitted that in many cases their precise mode of action is not settled. They disinfect by preservation and seem often to restrain change, as freezing would do ; yet they do not of necessity play the part of deodorisers.

The fumes of sulphur, or rather sulphurous acid, checks effectually the first development of animal and vegetable life, all animal odours and emanations are effectually and immediately destroyed by it.

This value is mainly dependent upon the strong affinity it possesses for oxygen. For disinfecting purposes, sulphurous acid must take a high rank ; it is effectual, economical, permanent, and rapidly applied, but the suffocating odour, coupled with the poisonous properties of the gas, is an effectual bar to its employmen t under all circumstances. Although they do not admitiof similar application, for some purposes these objectons are removed, and the place of the gas supplied by the use of the sulphites, of which the alkaline compounds are soluble. The most putrid fluid will become comparatively innocent, but not inodorous ; when these salts are added to it, perhaps all that is dangerous is removed, and the compound goes on acting until at last sulphuretted hydrogen escapes; therefore, the whole must be removed before this action sets in. The combination of the sulphites of lime and magnesia with carbolic acid by Mr. M'Dougall has produced a disinfectant equal, if not superior, to any hitherto fabricated for those purposes for which a powder or liquid is applicable, such as stable uses, or the disinfection of fœcal or sewage matter.

But, probably, carbolic acid must practically be ranked as the most important of liquid antiseptics. A large number of empyreamatic products possess similar properties. A saturated solution of this acid destroys plants rapidly, in it fishes and leeches die, and their bodies undergo no putrefaction ; it coagulates albumen ; in this liquid flesh shrivels, becomes hard, and remains in this state for years without putrefaction. But for these purposes, and to destroy the lower forms of life, either animal or vegetable, a certain strength is necessary, as, for example, one per cent. retards fermentation, and one in fifty stops it, but one part of carbolic acid in 1000 of water has no effect on the metamorphosis. There is a limit to the preservation ; flesh putrifies in water containing one part of the acid in 500 of water, but is perfectly preserved in one part to sixty of water ; it therefore seems that we may use such graduated amounts as to arrest or destroy lower organic phenomena, or attack the higher animal and vegetable life. The especial cause of its preservative power is unknown. Experiments prove that it neither depends upon the coagulation of albumen nor the retardation of the oxidising action. Again, it destroys all fermentation, but does not stay the conversion of sugar into starch by diastase, in the preparation of oil of bitter almonds. Carbolic acid acts more effectually, if the solution is of moderate strength. Four per cent. is sufficient for most purposes, and it is of the utmost value in all cases where a liquid disinfectant is needed, when the odour is no objection.

The fixative class comprehend the salts of iron, zinc, lead, &c., variously combined with sulphuric acid, nitric acid, chlorine, &c. Their action is limited chiefly to the offensive gases of putrefaction, according to the salt employed, *e.g.*, Burnett's fluid (chloride of zinc) operates

chiefly upon the sulphide of ammonium, while the peroxide of iron exercises a decomposing influence upon both. Whilst they exercise this influence, a large number of other offensive injurious vapours are confined by neither constituent of the salt. Moreover, the substance acted on is not endowed with a disposition to undergo further chemical changes, and having no true antiseptic property, they require frequent renewal. Their use seems to be specially indicated where large masses of putrefying matter have to be deodorised for a limited time, and at a small cost.

The general characters and properties of disinfectants in ordinary use have thus been described, with the exception of charcoal, which has decidedly taken its proper position and sphere of action. It is the consideration of their properties which would lead to the use of the disinfectant to be employed for any special purpose.

In the sick chamber we shall have to act rather upon the evolutions than the sources themselves, and hence we should select one of a diffusive character, and which will operate rapidly, objects fulfilled by those of the oxidising class. Chlorine is here of the highest value, used with care and caution, and in graduated quantities; in some respects, iodine seems to be better adapted, inasmuch as it is more manageable, and the vapour can be produced to any required amount. By the simple exposure of iodine in a plate or saucer, in the majority of cases, sufficient of the metalloid is volatilized to keep the air of the chamber pure. The evolution of ozone by the methods of Dr. Barker or Dr. W. B. Richardson, is very effectual, but not so simple or of so ready application. Mr. Condy diffuses his fluid through the air mixed with the vapour of water, a plan I have not found of equal efficacy to the preceding. In the disinfection of uninhabited places, the peculiar characters of sulphurous acid seem to be particularly applicable. The room should be closed, and quantities of sulphur burnt in several parts, and the process followed by whitewashing. Nitrous acid is very effective, but forming a deliquescent salt with lime, is liable to keep up a damp condition of the walls, and which may foster the germs of disease. To remove infection from bedding or wearing apparel, the application of dry heat at, or a little above, 200° Fah., is perfect and complete. When liquid matter has to be dealt with, the antiseptic or fixative class will usually be selected—the indications for the use of the latter, has been pointed out.

Disinfectants are, in many cases, very important, but they are no substitute for ventilation and cleanliness; in fact, if alone they are relied upon, their employment may be worse than useless, by leading to a confidence which experience of them does not justify.

CASE OF CONVULSIONS DURING LABOUR.

CRANIOTOMY, TERMINATING IN PUERPERAL MANIA: RECOVERY.

By EDWARD W. ADRIEN, M.R.C.S., L.K.Q.C.P.I.

At two o'clock, A.M., on Dec. 2, I was called upon to visit, in her first confinement, Mrs. D——, a national school teacher in this village, aged about 40, and a woman of rather plethoric appearance, although of a delicate constitution. Upon examination I found the os uteri dilated to about the size of a shilling, with the head of the child presenting, covered by the membranes, and everything, to all appearance, quite natural. I gave her a dose of castor oil, ordered the nurse in attendance to administer a purgative enema, satisfied myself that the bladder was empty, and left the room, expecting that it was a mere matter of time, and that everything would go on most favourably without any operative interference. In about an hour the labour pains began to increase in severity, and came on at very regular intervals, accompanied by the gradual dilatation of the os, the medicine having operated, and, having drawn off her urine, she appeared to be going on very favourably for about three hours, until 6 A.M, when, from the severity of the pains, and the labour making so little progress, I was induced to make an examination per rectum, and found that the sacro-coccygeal joint was completely anchylosed and the coccyx quite immovable, thereby materially obstructing the passage of the head; being in hopes, however, from the great strength of the pains, that it would eventually give way, and that the labour would be terminated naturally, I did not think it prudent to interfere, but merely ruptured the membranes, and waited patiently to let nature take its course.

In this way she remained until 10 A.M., when during a pain she was suddenly seized with a paroxysm of convulsions, her body becoming perfectly rigid, face bloated, and of a deeply livid hue; muscles violently convulsed, and a blowing of frothy saliva from the mouth, accompanied by a rattling noise in the throat; pulse slow and very weak. In about five minutes the severity of the attack passed off, and she lay in a semi-comatose condition, with stertorous breathing and a very slow pulse.

Not being provided with instruments, and considering her only chance of recovery was in being delivered as soon as possible, I immediately sent a messenger for my father, who lost no time in coming to my assistance, and who agreed with me, from the nature of the case, not being able to apply a forceps, the head being so high up, and the woman sinking fast, that we should perform craniotomy without delay, rather than allow her to die undelivered, and at the same time afford her the only possible chance of recovery. I accordingly performed the operation in the usual way, and by means of the crotchet, delivered her of a full-sized female child. The coccyx still remained immovable, and caused considerable difficulty in the extraction of the head, even in its compressed state. The placenta came away, I may say, along with the child.

Immediately after delivery, she gradually regained consciousness, took a small quantity of wine and water, and expressed herself very comfortable, and quite free from pain. I ordered a jar of hot water to her feet, mustard sinapisms to the calves of her legs, gave her a bolus composed of calomel gr. vi., pulv-jalapæ gr. x., confect. sennæ q. s., and left.

At about twelve o'clock noon, two hours after delivery, she was seized with another paroxysm, and worked as in the former one, for about the same length of time. I was now very much inclined to bleed from the arm, but owing to the weakness of the pulse, I thought it better to try the effect of local bleeding, so I accordingly applied six leeches to each temple, had her head shaved, applied cold by means of a bladder filled with ice, and a blister to the back of the neck.

In about half-an-hour she regained consciousness, but did not appear so well as before the last attack, and remained in a sort of heavy sleep until two P.M., when she was again suddenly attacked during sleep with a rigor, followed by another paroxysm, in which she worked for about the same length of time as in the former.

From this until the following evening (Dec. 3) at three P.M., the fits came on in rapid succession, scarcely half-an-hour ever intervening. She still continued to swallow some whey or chicken broth, when introduced into the mouth during the intervals, but was not at any time conscious.

I ordered the blister to be dressed with unguentum hydrargyri, drew off her urine every six hours, and gave ten grains of Dover's powder, with three of calomel twice a-day.

Dec. 4th.—Had no return of the fits since 3 P.M. on yesterday, but still remains unconscious; drew off her urine; ordered a purgative enema containing one ounce of spirits of turpentine, and to continue the calomel and Dover's powder.

At 6 P.M., much the same, bowels acted twice since morning, pulse 100, and rather weak; drew off her urine, and, finding the lochia rather scanty, and the parts very dry and inflamed, I ordered her to be well stuped three times during the night, and a large linseed meal poultice to be placed between her thighs.

Dec. 5th.—At my visit this morning, I have been told that she raved a great deal during the night, and was with great difficulty kept covered and in bed. She is still unable to recognise anyone, and I have remarked a yellowness of the conjunctiva that was not perceptible last evening; pulse 120; countenance pale and anxious; tongue covered with a brownish yellow fur; bowels have not been moved since yesterday evening. After drawing off her urine, and ordering the nurse to administer another enema, I thought well from the character of the delirium and her whole appearance, as well as the acceleration of the pulse, to inform her friends of the possibility of puerperal mania setting in, and to warn them against leaving her alone for a minute, or allowing anything to remain in reach, with which she could either inflict injury on herself or on any of her attendants.

I also ordered her a draught of one ounce of the compound decoction of aloes, and three leeches to each temple, the warm fomentations and poultices, with cold to the head to be continued. I determined to avoid as long as possible the use of opium.

6 P.M.—At my visit this evening I found little, if any, improvement since morning. The delirium has evidently increased, and she has become more unmanageable; bowels acted twice after the draught, but the same inability to empty the bladder continues. I now ordered an enema composed of two ounces of mucilage of starch, with half a dram of tincture of opium. A draught, containing ten drops of the tincture, to be repeated in about two hours in case sleep is not produced by the first, and five grain doses of Dover's powder every two hours, to keep up the effects of the opium, and cause a determination to the skin.

6th.—At my visit this morning I found her considerably worse than on yesterday, very violent, and requires to be kept in bed by main force. She slept for about an hour during the night, but did not seem to be in the least improved by it. I now ordered a draught of twenty drops of tincture of opium, with an enema, containing half a drachm, the enema to be repeated in two hours in case the first had not the desired effect. Drew off her urine, and left.

5 P.M.—Went to sleep in about an hour after the administration of the second enema, which was at one o'clock to-day, being now asleep four hours. I did not disturb her to pass the instrument, but desired the nurse to administer another enema in about three hours after she awoke, in case she was still violent, and to continue the cold to the head.

7th, 10 A.M.—Much better; did not awake until seven o'clock last night, having slept, in all, six hours. Pulse 90. Answers questions quite rational. Passed water this morning without the instrument; bowels moved also. Complaining of a slight headache, but with that exception, expresses herself very comfortable.

8th.—From this day to the present, she has progressed most favourably, and with the exception of slight bedsores, which are fast healing, she is now quite convalescent.

I have asked her if she was ever subject to fits, or any of her family, but she says she never knew of any one belonging to her to be so affected, and that she always enjoyed perfect health herself, until the last couple of months, when she caught cold, and her feet and legs became swollen, in which state she remained until about three days ago.

EXTRAORDINARY FEMALE LONGEVITY.—The following illustration of prolonged existence appeared in the obituary of the *Times* a few days since, where the deaths of ten ladies and five gentlemen are recorded, whose united ages amounted to 1282 years, giving an average of 85 years and upwards of 5 months to each; the united ages of the ten ladies amounted to 868 years, showing that they had reached, on an average, the great age of 86 years and more than 9 months; the oldest lady was in her 93rd year, and the youngest in her 81st year. The united ages of the five gentlemen amounted to 414 years, giving an average of 82 years and more than 8 months to each; the oldest had reached 86, and the youngest 80 years.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

TWO CASES OF VERTICAL FRACTURE OF THE LOWER END OF THE FIBULA, WITH UNREMEDIED DISPLACEMENT OF BROKEN PORTION.

Under the care of Mr. SIMON.

HENRY W., æt. 57, a whitesmith, was admitted into accident ward, under Mr. Simon's care, January 23rd, with an obscure fracture of the leg. He had slipped down on the previous evening in the frost, but in what position his foot was twisted he could not explain. He had limped home afterwards with a good deal of pain.

On admission it was found that there was a projecting piece of bone standing up under the skin, between the ends of the tibia and fibula, close to the ankle, its size being about one and a half inches long, by rather more than half an inch wide. The tibia was traceable in its whole length to the inner malleolus, and the fibula in perfect continuity to the outer malleolus, but the latter had evidently lost considerably in breadth. Examining the outer leg, it was found that the anterior edge of the fibula, close to the ankle, was thickened by gouty or rheumatic deposit, and by comparison it seemed most probable that a vertical fracture of the lower end of the fibula had taken place with displacement of the piece of bone, so that its point lay against the skin. The fragment was rather loose, but, nevertheless, could not be replaced by careful manipulation, and the deformity remained. There was some swelling of the ankle-joint from effusion, but this was not enough in itself at first to obscure the diagnosis.

The swelling soon increased, and with it there remained acute tenderness over the displaced fragment, caused chiefly by its pressure against the skin, and doubtless increased by the frequent attempts at manipulation. He was an irritable, cantankerous man, which rendered examination and manipulation a rather difficult and painful task.

On February 23, thirty-one days after admission, he was discharged at his own request, but the deformity was not improved. The piece of bone, however, had united firmly in its new position, but the skin still remained acutely tender over it. The ankle-joint was rather limited in its movements, and he suffered pain of a marked character when he attempted to walk, so that the result of the case was rather unsatisfactory.

Remarks.—This case was one of the large number of accidents which occurred last winter on the night of the 22nd of January, when a hard frost occurred immediately after, and almost with a fall of rain, making all the roads one sheet of ice. The nature of the injury was somewhat doubtful, but the diagnosis was as described—*i.e.*, that it was a vertical fracture of the lower end of the fibula, with displacement. By one of those curious coincidences which occur contrary to all probability, an opportunity offered itself only a few weeks afterwards of verifying the accuracy of the diagnosis, by the post-mortem examination of an apparently exactly similar case, the details of which form the subject of the following notes:—

VERTICAL FRACTURE OF THE LOWER END OF THE FIBULA WITH UNREMEDIED DISPLACEMENT OF BROKEN PORTION: EXAMINATION OF THE PARTS AFTER DEATH.

Wm. D., æt. 55, a painter, was brought into the hospital March 9th, and placed under Mr. Simon's care. He had fallen while walking, but, being drunk at the time, could give no account of the position of his foot at the time of the accident.

The tibia was found to be fractured at the internal malleolus in a direction running downwards and backwards. The fibula was fractured transversely about two inches above the lower end. In addition to these, however, there was a piece of bone projecting beneath the skin between the tibia and fibula. The fibula was diminished in breadth

considerably, for the lower two inches of the bone, and notwithstanding careful efforts at reduction, the deformity remained. It appeared that a vertical fracture of the fibula existed with displacement of the separated portion just as in the case previously reported. The man was too drunk to take notice of what was being done for him, or to give any evidence of pain during the manipulation of the fracture.

He was very noisy and troublesome, and did not sleep during the early part of the night. About midnight, therefore, washe given half a drachm of tincture of opium, which gradually quieted him. He slept well from three A.M. to six A.M., and then woke up and conversed rationally with the other patients near him; about eight A.M. it was noticed that his breathing was heavy and rather laboured, and he soon became comatose and died at eleven A.M., or thirteen hours after admission.

At the post-mortem examination it was found that the nature of the fracture was as follows:—Besides the transverse fracture, there was a piece of the fibula broken off longitudinally, and involving about one-third the breadth of the bones. This was so shaped that the deeper portion of it ran to an angle, and this had become displaced on to the front of the tibia. It was, in fact, a vertical fracture of the fibula, with a twisting round of the broken piece.

In addition to the fracture the other morbid appearances discovered were contraction, and commencing fatty degeneration of the kidneys, fatty liver, and slight congestion of the lungs. The heart was healthy, and its right side was full of decolourised clot as usual.

Remarks.—These two cases are valuable as showing a peculiar form of fracture in the fibula, in neither case reducible. It must be remarked, however, that after careful examination after death, when the surrounding tissues had been dissected away, the bone could be reduced by the following method:—The extreme lower end was firmly pressed, so as to elevate the receding central angle over the edge of the tibia, and as much rotation as possible was given to it. This angle being upon the ledge of tibia direct pressure backwards sent the whole into its original position. Whether this method might have been adopted with success during the life of the patient, or in the first-mentioned case, admits of a certain degree of doubt, but it would be a guide for the method of attempting reduction in similar cases in future.

The sudden death of this man is peculiar, and the cause of it obscure. The chief disease found was a commencing form of renal, and in such cases death does not infrequently happen with unaccountable suddenness.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. TONGE.)

CROUP.—Mary A. C., æt. 3½. Admitted September 24, discharged Sept. 24. *Unrelieved.* Previously ill, 3 days, remission on 2nd day, but worse towards evening; stridulous inspiration; very little cough; pulse 160; respiration 40; crepitation at bases of lungs; was removed by mother. *Died* about 2 hours afterwards.

Treatment.—Ipecacuanha emetics. Hot baths.

CYNANCHE TONSILLARIS.—Emma M., æt. 27, probationer; admitted March 21, discharged April 2; in hospital 12 days. *Recovery.* Previously ill, 1 day. Shivering; headache; anorexia; swelling and redness of tonsils.

Treatment.—Liq. ammoniæ acetatis and chloric ether (2 days); then quassia and dilute muriatic acid.

CYNANCHE TONSILLARIS.—Emily S., æt. 14; admitted March 21, discharged April 2; in hospital 12 days. *Recovery.* Previously ill, 7 days. Headache; vomiting; constipation. Pulse 100; tongue thickly furred; slight swelling about parotids.

Treatment.—Castor oil. Grey powder and rhubarb. Sulphate of iron and quassia.

CYNANCHE TONSILLARIS.—Sarah R., æt. 16, servant. Admitted July 11, discharged July 30; in hospital 19 days. *Recovery.* Previously ill 6 days. Headache; loss of appetite; great dysphagia. Pulse 120; velum and tonsils red and swelled; abscess in right tonsil.

Treatment.—Aromatic spts. of ammonia chloric ether, liq. ammoniæ acetatis, and decoction of bark. Iron and glycerine to throat.

CYNANCHE TONSILLARIS.—W. B., æt. 27; gas-fitter; admitted Sept. 19, discharged Oct. 5. In hospital 16 days. *Recovery.* Previously ill two days. Shivering; giddiness; pains in limbs; abscess in left tonsil and right tonsil successively.

Treatment.—Dilute nitro-muriatic acid, chloric ether, and decoction of bark.

CYNANCHE TONSILLARIS.—A. S., æt. 29, nurse; admitted Dec. 19, discharged Dec. 29; in hospital ten days. *Recovery.* Previously ill eight days. Shivering, headache, and loss of appetite; enlargement of right tonsil, then an abscess in left tonsil.

Treatment.—Aromatic spts. of ammonia, and liq. ammon. acetatis; then quinine dilute sulphuric acid, and sp. chloroformi; iron and glycerine to throat.

CYNANCHE TONSILLARIS.—E. S., æt. 25, schoolmistress; admitted June 25, discharged July 5; in hospital ten days. *Very much relieved.* Weak since diphtheria, six months ago. Previously ill six days. Feverishness; scanty white exudation on tonsils; left tonsil enlarged; fauces red.

Treatment.—Dilute nitro-muriatic acid, chloric ether and liquor cinchonæ; pepsine; iron and glycerine to throat.

PAROTITIS.—Esther H., æt. 22; admitted Sept. 30, discharged Nov. 12; in hospital forty-three days. *Very much relieved.* Subacute inflammation of parotid and cervical glands on right side; became chronic.

Treatment.—Chloric ether and liq. ammoniæ acetatis, (fourteen days.) Dilute muriatic acid and liq. cinchonæ, (ten days,) then quinine, sulphate of iron, sulphate of magnesia, and dilute muriatic acid; aperients; cod-liver oil.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Dr. FLEMING'S Surgical Clinique.

III.—HERNIA AND HYDROCELE—DISTRIBUTION OF TRUSSES.

DR. FLEMING, in continuation of his previous remarks, commented upon the great frequency of hydrocele in connection with hernia, both in the male infant, child, and adult. In the female, amongst the numerous cases of hernia which he witnessed, he had only once met with hydrocele, and that in the adult. It was in the form of "encysted hydrocele of the round ligament." Its characters were well-marked, yet it was mistaken for hernia. The hydrocele was injected with iodine, and a cure was effected, but after a short interval a hernia supervened—an occurrence by no means unfrequent in these cases of vaginal hydrocele, where the disposition of the hydrocele is as if to grow up to the external abdominal ring, and even to enter the inguinal canal. The diagnosis from hernia is most satisfactory in such class of cases; the upper boundary of the hydrocele is distinct; there is no hernial protrusion; no hernial impulse. Such cases, Dr. Fleming stated, he has recorded, and has often met with.

Tap such hydrocele, and almost immediately afterwards a hernia makes its appearance. The practical lesson here taught is to stay the growth of such hydrocele by tapping them early. The formation of a hernia is otherwise absolutely encouraged. The abdominal rings are necessarily approximated; the inguinal canal is almost obliterated; the internal and external rings correspond, and the hydrocele, hitherto acting somewhat like the pad of a truss, by keeping up the bowel, now allows it to protrude. This

form of hydrocele occurs more frequently than is usually imagined, and is often confounded with hernia. The defined outlines limiting the upper part of the tumour, and the concealment of the testicle at the lower, are too obvious features to escape the attention of the clinical student. Should it so happen that this particular form of hydrocele has been far advanced before advice is sought for, Dr. Fleming recommended that the prevention of hernia should be ensured by a light truss, as the anatomical changes present not alone favoured the rapid development of such hernia, but also promoted its rapid increase in size.

Confining his remarks to inguinal and to inguino-scrotal hernia, Dr. Fleming pointed out the admirable lessons taught by studying the casts and drawings of such in the museum of the hospital. Their value was immeasurable, and by carrying them in his mind, the pupil will find from their study, excellent assistants to the recognition, and the diagnosis of the several distinctive characters of those affections. Hydroceles in childhood are very common, both single, and associated with hernia, and this, at the earliest period of infancy. Dr. Fleming specified the several important points to be kept in view in such cases, and remarked on the great frequency of "vaginal hydrocele" at that period of life, in contradistinction to the "encysted" forms as usually noted by authors, which are by no means frequent in the infant or child. This variety of hydrocele, Dr. Fleming remarked, was far less so in the adult. Very nice discrimination and delicate tactile examination were required in their investigation, and when, at the periods for the distribution of trusses, such cases presented, Dr. Fleming stated that he would not neglect their special consideration.

Dr. Fleming next alluded to other forms of hydrocele in connection with hernia, and more particularly with inguinal hernia, such as "hydrocele of the hernial sac," whether "spurious" or otherwise; he had a most instructive case of that class now in hospital, and it shall have a special clinical notice.

MERCER'S HOSPITAL.

FOUR CASES OF LUXATION OF THE THUMB.

By Surgeon MORGAN,

PROFESSOR OF SURGICAL AND DESCRIPTIVE ANATOMY, R.C.S.I.

HEY'S LUXATION OF THE THUMB IN A CHILD SIX MONTHS OLD.

This case was brought to hospital by the mother, who stated that in undressing the child the evening before its thumb got entangled in the shoulder strap of the dress, and got "a twist." She observed the deformity immediately, but as the child did not seem to be much distressed by it, she waited till morning, when on presenting it at the hospital, all the signs of "Hey's luxation of the thumb" were evident. The shortened stumpy appearance; the metacarpal tumour on the palmar aspect, and the phalangeal on the dorsal; all on a lilliputian scale. Mr. Morgan easily effected the reduction by increasing the deformity, and pushing the base of the phalanx forward. A small guttapercha mould was applied for a few days.

HEY'S LUXATION IN A BOY AGED ELEVEN YEARS.

A boy was using his father's plane, a few hours previous to coming to hospital, and having the thumb resting against the end of the plane, when suddenly it was stopped by meeting a nail in the wood, while he was vigorously at work.

All the signs of Hey's luxation were evident, and the boy suffering considerable pain. The reduction was effected by Mr. Morgan in the same way as the former case, by increasing the deformity and using moderate pressure against the phalanx.

HEY'S LUXATION OF FOURTEEN MONTHS' DURATION.

A boy aged twelve presented himself for treatment at dispensary, suffering from Hey's luxation of the left thumb of fourteen months' duration, the result originally of a fall. He complained chiefly of the "ugliness," and that he had not *quite* as good use of it as of the other, owing to its shortness. On examination, all the deformities were as well-marked as in a recent luxation, but the parts had so accommodated themselves that the thumb was almost as useful as the other; bearing out the remark of Sir A. Cooper, that if the dislocation be left unreduced in cases of extreme difficulty, the patient will still have in time a very useful thumb.

A cast was taken, which is in the Hospital Museum.

HEY'S LUXATION, OCCURRING FOR THE THIRD TIME.

A middle aged woman presented herself at dispensary with a Hey's luxation, which had happened her for the third time within a few months. Mr. Morgan reduced the luxation, which offered no difficulty whatever, as the ligaments were manifestly relaxed. A guttapercha mould was fitted to the parts, with directions to have it constantly worn, and a stimulating liniment to be used night and morning.

Society Proceedings.

SURGICAL SOCIETY OF IRELAND.

Dr. ADAMS, President of the College, in the Chair.

(Continuation of Meeting held December 6, 1867.)

PUNCTURED FRACTURE OF THE SKULL FOLLOWED BY TETANUS.

MR. FLEMING said that the morbid specimens and the drawing which accompanied them, now laid before the Society, were illustrative of a case of injury of the head terminating in rather an unusual manner, and which passed lately under his observation, and that of the President in the Richmond Hospital.

The subject of it was a boy 19 or 20 years of age, who had been working in one of those man-holes in the streets of the city, and who, when at work in the lower part of the hole, was accidentally struck by a fellow-workman on the head with a pick-axe.

The blow was given with considerable force, with the intention of removing an elbow at the side of the hole. The unfortunate young man, not stunned at all by the injury, extricated himself and went to an adjoining hospital. There, he had the wound dressed, from which a large quantity of blood had escaped at the time of the accident, and continued to flow for some time afterwards. He then proceeded home, not suffering in the slightest degree, nor in any manner indicative of mischief within the skull. He remained at home a week, when, one night at the end of that time, he was attacked with soreness in the throat, difficulty in deglutition, and considerable stiffness in the muscles of the neck. The next morning he was brought to the Richmond Hospital by the Catholic clergyman connected with it, and when he walked into the hospital, supported by his father, his appearance struck him (Mr. Fleming) as remarkable. He had that position of the head and neck so familiar to those who had witnessed the cases of cerebro-spinal arachnitis, which had latterly been prevalent in Dublin. At the time no mention was made of the injury which the man had received, and at first he thought it a case of that description. However, having learned that he had received an injury of the head, he examined him carefully, and found a small punctured wound situated at the back portion of the head, almost in the middle line and near the upper angle of the occipital bone. The wound was very small, There was not the slightest elevation of the surrounding scalp, and a probe proved that the bone was bare. It was quite evident the symptoms he laboured under were those of tetanus. His intellect was perfect; and he learned from his father and brothers, that throughout the week which had elapsed from the infliction of the injury he had not manifested the slightest disturbance of the brain. The muscles principally engaged were those at the back of the neck, the sterno-mastoid and the abdominal muscles. Opisthotonos was most severe. He had perfect control over his extremities, and continued to

possess it during the whole of his illness. The case, as in most of these cases of traumatic tetanus, was uninfluenced by any treatment adopted. He tried Belladonna, which was administered in large doses, both the extract, by pill and the tincture, by injection. The treatment commenced on the morning of the eighth day after the occurrence of the accident; he saw the patient in the latter part of the evening and not the slightest effect was produced by the medicine, although he had at the time taken six grains of the extract of Belladonna, in addition to twenty drops of the tincture, administered by injection. He then had recourse to Aconite, and ultimately to Nicotine, the latter being administered in the form of pill. He had limited his remarks to those symptoms which were most prominent on the admission of the boy to hospital, and during his stay. The injury was of that class of fracture, which had got the name of punctured fracture of the skull; and it showed a feature generally existing in all fractures of that class—namely, greater injury of the inner than of the outer table of the skull. The other morbid lesions are indicated in the drawing on the table by a young artist, Mr. Burnside, who had but lately commenced pathological painting, and who exhibited such artistic skill as to justify the hope that he might take the place of that true delineator of nature, the late Mr. Connolly. The portion of the bone fractured, was driven in, and impacted in the dura mater of the longitudinal sinus. Many practical questions arose as to the treatment that would have been suited to this case, had it been seen at an earlier period. If the patient had been seen at the time of the occurrence, would they have been justified, in the absence of any indication of cranial mischief, in having recourse to an operation to anticipate the mischief that subsequently arose? Or when the symptoms of tetanus were established, would they have been justified in operating? The question was one of great practical importance. The occurrence of tetanus in connection with injuries of the scalp was quite familiar to most members of the Society, but the occurrence of it in connection with the special class of injury which existed in the present case was comparatively rare.

Mr. RAWDON MACNAMARA said he took a great interest in the use of Belladonna in cases of tetanus in which it occasionally seemed to have no action on the iris, and he therefore wished to know whether in the present case it dilated the pupils.

Mr. FLEMING replied that there was no such effect produced on the pupils.

Dr. R. MCDONNELL said that the last case of tetanus which he met with was in Jervis-street Hospital. Belladonna itself was not given. He objected now-a-days when they had a carefully made preparation, the strength of which they accurately knew, to use one the strength of which they did not know with certainty. It was Atropine which was used in that case. They were able with it to make a solution of a certain strength, and to graduate the doses with the greatest nicety. Whereas, extract of Belladonna, the strength of which, as every practitioner knew, varied at different establishments. In the case to which he referred, the effects of Atropine were as marked as could be, and the pupils were widely dilated. In that case, in the endeavour of sustaining the patient's strength, he transfused blood from his own arm to that of the patient to the amount of ten or twelve ounces.

Mr. TUFNELL asked if any brain substance appeared through the wound?

Mr. FLEMING replied in the negative.

Mr. TUFNELL observed that looking at the osseous case it would give the idea that it was a case of tetanus from irritation, but on looking at the drawing it would appear as if the dura mater were perforated, and that the brain was exposed. On inspecting the bone it would be seen that there was a slight depression of the inner table, just the injury that would produce the tetanus of irritation—the drawing, however, gave him the idea as if the dura mater had been perforated, and that the brain substance passed through the opening.

Mr. RICHARDSON asked was there any contra indication to the administration of mercury in the case? It appeared to him, from the intense injection of the vessels of the brain and the injection of the dura mater, that it might have been useful.

Mr. STAPLETON should be disposed to look on it not as a case of pure tetanus, but rather a case resulting from inflammation of the brain and its membranes.

Dr. DARBY wished to mention a case of a punctured wound in the skull which came under his notice in the year 1832 or 1833, when a resident pupil in the Richmond Hospital. A boy went out on St. Stephen's Day to shoot with the barrel of an old horse pistol, which he tied on a piece of stick. At the first shot the barrel flew up into the air, and then descended on the top of his skull punching a hole in it, like that represented in the drawing exhibited by Mr. Fleming which he thought most creditable to Mr. Burnside. The boy had a small punctured wound very near the central line, and he was taken up insensible. He was brought to hospital, and a depressed fracture of a small portion of the skull was very palpable. The surgeons in attendance thought it better that he should not be trephined, or any effort made to raise the depressed portion of bone. He was treated on the antiphlogistic principles, got tartar emetic, and was ordered to be bled by Mr. Carmichael. On the 14th or 16th day he got tetanus. He ultimately recovered. He had the boy under his observation for six or eight months after the injury occurred to him, and during that time he never lost that peculiar expression of face which tetanus imparts. Peile, Carmichael, McDowell, and our present President, all saw the case, and decided on the mode of treatment to be adopted. His opinion was that, if immediately after the accident, Dr. Fleming's patient had been treated, he might now be alive.

Mr. FLEMING, in reply, said he appealed to the President, who had seen the case, with reference to the remarks of Mr. Stapleton, whether there could be any difference of opinion as to the presence of tetanus in his case. He had seen symptoms like those Mr. Stapleton alluded to, but they were different altogether from those in the present case, the diagnosis of which could not be questioned. With respect to the appearance in the drawing, which Dr. Tufnell seemed to think indicated inflammation of the brain, it was accidentally put in by the artist. Blood had escaped from the longitudinal sinus at the post-mortem examination, and the whole surface was covered with blood, and the artist painted it just as he saw it. The redness in the drawing was not the redness of congestion or inflammation, but of the blood that had escaped.

Review.

ON DISEASES OF THE LUNGS AND AIR-PASSAGES: their Pathology, Physical Diagnosis, Symptoms, and Treatment. By HENRY WILLIAM FULLLER, M.D.Cantab., Fellow of the Royal College of Physicians, London; Physician to St. George's Hospital, &c. Second Edition. London: John Churchill and Sons, New Burlington-street. Pp. 534.

DR. FULLER is well-known to the profession as the author of a sound and practical treatise on rheumatism, rheumatic gout, and sciatica, now in its third edition, and we gladly welcome from the pen of such an experienced and carefully observant physician, a work on the diseases of the lungs. We are not among those who believe it to be impossible in these days of "specialists," for a man to know two things well; on the contrary, when a man has shown himself an able and correct observer of the phenomena of one kind of disease, we may be sure that the same habits of mind and study will serve equally to elucidate matters connected with any other diseased state, provided the opportunities of observation are equally good in both instances.

Part I. of Dr. Fuller's work explains fully the principles of physical diagnosis, and their application to the investigation of the diseases of the lungs. Considerable space is given to a description of the respiratory sounds, and movements in health, and, indeed, of all that is connected with a normal thorax. These matters are the alphabet of auscultation, and must be thoroughly learned by the student before he can decipher the auscultatory language which will reveal morbid states to him.

We cannot too strongly urge upon any one, commencing the study of auscultation, carefully to peruse this first part of Dr. Fuller's book, and, while doing so, to familiarise himself with the varieties of healthy respiration; then, when this is done, we would suggest the out-patient room of a hospital, and very soon the learner will recognize all the deviations from healthy breathing, likely to be pointed out to him by the physician. Too often a student stands, stethoscope in hand, never troubling to auscult, if the physician dismisses a case with "respiration quite normal," but the remark that one has "crackling," another "gurgling," a third, "bronchial breathing," makes him think that now he has a chance to *commence* learning auscultation, and that here are cases not to be missed.

In his description of the phenomena of auscultation, Dr.

Fuller follows the wise plan of regarding each physical sign, not as indicative of a certain disease, but rather as the natural consequence of a certain physical alteration in the tissues, the source and true interpretation of which must be determined by concomitant circumstances. True to this plan, all through the work we find interesting and often elaborate descriptions of the causes inducing certain phenomena of auscultation and percussion. In the chapter on percussion, at page 60, we find notice of the well-known fact that, "a clear, high-pitched sound of a somewhat metallic character, may be elicited over lung tissue more or less solidified, and that an abnormal resonance may be met with in the infra-clavicular regions when the pleural cavity is three parts full of fluid, and the lung is thereby partially compressed."

We must say that we have always held undisturbed the belief that this phenomenon was simply due to air pent up in the lung tissue by surrounding condensation, and it is satisfactory to find Dr. Fuller, at page 66, to be of the same opinion; we only wonder at its being deemed worth while to spend so much space in the preceding pages in disposing of theories which, though coming from some good authorities, seem hardly worth noticing.

In this same chapter on percussion will be found some valuable remarks on the "cracked pot sound," the precautions necessary in detecting it, and its true pathological meaning.

Chapters VI. and VII. are devoted to auscultation and the respiratory sounds; and the two tables of respiration in health and the changes which occur in the sounds of respiration in disease, embody a small practical treatise on auscultation, so admirably is the information condensed and arranged.

We must, however, pass on now to the second part of the book, which treats of the diseases of the respiratory organs.

The first chapter treats of pleurisy, and we are glad to find that Dr. Fuller has some faith in treatment by medicine, and does not leave his patient to struggle through the disease with no other help than a poultice on his side. We read at page 207:

"Mercury combined with opium exercises a markedly beneficial influence. It appears to check the effusion of inflammatory products and also to promote their absorption." While giving small doses of calomel by the mouth, Dr. Fuller applies some mercurial ointment on linen to the affected side, a plan we have tried with advantage, mixing some ext. belladonnæ with the ung. hydrarg. if there be severe pain in the side.

Our own plan is never to push the mercury to salivation, but to endeavour to give enough to arrest the extension of the inflammation. When this has subsided, absorption of effused products will often ensue spontaneously; if it does not, then we find liquor potassæ and iodide of potassium of great service; but while inflammation continues we do not expect to get absorption to take place.

When speaking of the varieties of pneumonia, five in number, Dr. Fuller places first pneumonia due to inflammation of the interlobular cellular tissue of the lung. These cases are met with usually in rheumatic persons, and are apt to be confounded with pleurisy. They are to be distinguished from ordinary pneumonia by the comparative "absence of crepitation, and by the fact that the crepitation which exists is heard during respiration as well as inspiration; and from pleurisy by the rapidity with which strongly-marked tubular breathing ensues, and continues day after day unimpaired in intensity; by the increase of vocal fremitus; and by the increased resonance of the voice."

The tendency of this form of pneumonia appears to be to induce the condition of lung known as "cirrhosis." The fifth variety of pneumonia described by our author is "chronic pneumonia." "This variety of the disease, when unaccompanied by the deposit of tubercle or other adventitious product in the lung, is extremely rare. It is met with in two distinct forms, the one being commonly the sequel of acute pneumonia, the other occurring as a chronic affection without having been preceded by symptoms of the acute disease." "The second variety ought, perhaps, to be described as fibroid degeneration rather than as chronic pneumonia, and should be classed under the head of phthisis, as being more nearly allied to that disease than to simple inflammation of the lungs. The lung is infiltrated by a reddish, solid, material, which, after a time, becomes distinctly fibroid in character, loses its deep red character, and, in many places, assuming a granite-grey tint, causes the lung to become strikingly mottled. These cases, I believe, form a connecting link between chronic inflammatory consolidation and tubercular infiltration"—p. 277. We are glad to see the researches of Dr. Sutton on fibroid degeneration of the lung, are referred to in the note, and we have ourselves seen this condition of lung demonstrated by Dr. Sutton, in the post-mortem room, at Victoria-park Hospital, the appearances being exactly as given in the above description.

Space compels us to pass over the next chapter of Dr. Fuller's book very briefly. We find at page 385, that zinc and belladonna still hold a high place as remedies for whooping-cough. These two remedies judiciously employed (full directions are given for their employment), are capable of reducing the average duration of an uncomplicated attack of whooping-cough to three weeks or a month.

Chapter IV. is the longest in the book, and, with the exception of a few pages on intra-thoracic tumours, the last; it treats of pulmonary consumption, and abounds in matter that is both interesting and instructive.

We strongly support Dr. Fuller in considering the more appropriate title of this disease, to be simply "consumption," "phthisis," or "tuberculosis," terms which do not convey the erroneous impression of the disease being of pulmonary origin.

So far as our experience goes, the less a consumptive person thinks about his lungs the better. Let him think of his stomach, his skin, and the importance of out-door exercise, while he abstains religiously from cough pills and pectoral mixtures, which nauseate the stomach, destroy its tone, and yet, withal, have little or no curative action over the chest symptoms.

With respect to consumption being an hereditary disorder, Dr. Fuller quotes the records of the Brompton Hospital, which show an hereditary tendency in only 24·4 per cent., but he states as his own conviction, "that an hereditary predisposition exercises a far more extended influence than is indicated by the Brompton Hospital report"—p. 400.

This we quite believe, for judging from pretty extensive experience among the out-patients of a chest hospital, our belief is that a very large proportion of the cases of consumption there met with are due to acquired causes, such as poor living, over-work, close hot work-rooms, and so forth, and these cases commonly present no hereditary history of consumption, and improve under a tonic plan of treatment, in a way that is most satisfactory.

We believe if some of the great lung doctors of London would tabulate some hundred or so of their well-to-do private patients, with a view to noting the prevalence of hereditary taint in the system they would deduce a very much higher percentage than 24·4.

Just now, when the contagious nature of consumption is attracting some attention, it is well to see what Dr. Fuller has to say on this point.

At page 478 he alludes to the belief held by the Italians that phthisis is a contagious disease, and then referring to the instances where a wife, after nursing a consumptive husband, herself falls a prey to the malady, he attributes this fact to the long confinement entailed by nursing in a sick room, rather than to any actual contagion in the malady itself, for being a diathetic disease, it is not of a nature to be communicated from one person to another.

This, doubtless, is the right view of this subject, for phthisis is no more likely to be contagious than is gout or rheumatism.

On the matter of climate as a curative means for the consumptive, we find Dr. Fuller thus writing:—"Here I find myself at issue with the opinions of many excellent and learned physicians, and no less so with popular prejudice."

The point of issue seems to be that Dr. Fuller does not regard a residence in a warm climate, "as the best and most effectual prophylactic in threatened consumption." In our humble opinion, Dr. Fuller is quite right, and the learned physicians and popular prejudice are together in the wrong.

"Medical investigations into the geography of phthisis prove that cold is, if anything, preventive of the disease;" and then Dr. Fuller notes how prevalent the disease is in some warm climates, as France, Italy, Malta, and Madeira."*

These matters show that a warm climate is not necessarily preventive and curative for all consumptive people. No doubt there are cases, especially where the larynx is affected by the disease, where the patient cannot breathe a cold air; and these cases must therefore be placed in a warm atmosphere, while others with much exhaustion and relaxation of system, are really killed by living in a hot and relaxing atmosphere.

The classification of climates given at pp. 484-85 is admirable.

Among "Medium climates" suitable for the majority of the consumptive, we find enumerated the west coast of Scotland, Cheltenham, Ventnor, and St. Leonard's.

* See, too, for statistics on this subject, a book on change of air in the treatment of phthisis, by Dr. Thorowgood. 2nd edition.

So far as our experience extends, these are all safe and often highly beneficial climates, and it is very easy for the patient to judge from his sensations at these "intermediate" places whether his future wanderings should lead him to a colder or warmer place.

Before concluding, we would commend the remarks on medicinal treatment to the reader. Dr. Fuller, like all good pathologists, is no believer in specifics; his remedies do not form a long list, but he evidently knows well how to handle them.

A man who recognises the remedial sphere of bichloride of mercury in consumption has not watched disease and the action of remedies in vain, and it is not often that one finds a case of phthisis in its third stage cured so completely as was William Wilby, whose case is given in the foot-note to page 504 of Dr. Fuller's book.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 1, 1868.

1867.

AT the close of the year 1866, we laid before the Profession a full account of our plans for the year that has just ended. How far we have succeeded in realizing the intentions we then expressed, the two volumes of our journal for 1867 bear witness. By our works we must be judged, and to them we are content to appeal as the ground of our hope for a still larger support. As then we asked the reader to contrast the current volume with the one that preceded, so now we believe the two last volumes will bear the same test. Let us, therefore, as before, appeal to our performances as superior to promises. Not that we feel there is no more room for improvement. No one can be more sensible than ourselves of our own shortcomings, and these it is our constant aim to remove. We have the best evidence that it is now the general opinion in professional circles that during the past year we have placed the MEDICAL PRESS AND CIRCULAR on a broader and firmer foundation than it previously occupied. Our opinions now have greater weight and authority, and represent more fully the larger and increasing numbers of our supporters. On any question of interest to the medical world, it cannot be said that both sides have been heard until the MEDICAL PRESS AND CIRCULAR has spoken. To those who have laboured to this end, such success cannot be other than gratifying, and it affords us just the stimulus necessary to support us under many vexations and annoyances, and to renew the work with redoubled energy. Success is to us a call to further labour. The wide sympathy and the many congratulations we have received as to what has been accomplished, only encourage us to pursue the career of independence and honesty which has made our journal a truly representative organ of the liberal and enlightened portion of the profession.

Untrammelled by cliques, unfettered by any school, we can the more justly aspire to be the mouth-piece of all. Our columns have never been closed against one set of views, or one set of men. All here find a platform, and each may break a lance with each in any cause that is of importance to the profession.

More than eight-and-twenty years have elapsed since the MEDICAL PRESS was started. Two years are now completed since the MEDICAL CIRCULAR was purchased by the PRESS and amalgamated with it. In these two years much has been accomplished, but so much more in the latter that we may well confine ourselves to that.

As we look back on 1867, we are reminded that, as in the outer world, it has been a time of great convulsions and changes, so in the smaller world of medicine, it has been a year of unusual excitement. Nature and man have combined to render it a memorable period, distinguished by violent disturbances of the equilibrium of routine. Witness the terrible disasters at sea, earthquakes in the West, cyclones in the East, an eruption of Vesuvius; at home, explosions of mines on a tremendous scale, and scarcely less disastrous explosions caused by crime, and all over the world a general upheaval of political passion, yielding only fruits that are not yet ripe, but the nature of which is to be judged by the feverish waiting for events that prevails in all the countries of Europe. So the world medical has been a reflection of such a year of unquiet. Heated controversies, debates teeming with personalities, abuse of men instead of refutation of principles, strong appeals to passion and prejudice—these and similar things have disfigured the annals of British medicine, and engulphed in the whirlpool of contention, that simple love of truth which should prepossess every member of a profession, the highest model of which was at once the exemplar of all humanity, and the leader who, in the exercise of a Divine mission, "went about doing good."

Yet, out of all fury of contending elements, no doubt good may come, and this hope it is that has often cheered us in our task, and nerved us for our share in the conflict. We know that in every instance our desire has been to range ourselves on the side of right. Our first wish has been to serve conscientiously our profession, and raise it to the position it ought to occupy. Petty factions, large parties, these are nought to us. We owe allegiance to the profession as a whole, and rejoice in the opportunity of serving it as loyally as hitherto. It would be useless to recapitulate our struggles in this cause, and thus stir up again strifes that may slumber. Turn we rather to the practical side, and see what has been accomplished through us.

During the past year we have published clinical lectures, essays or other original communications from most of the leading physicians and surgeons of the day. Our hospital reports have included all the great hospitals of London, as well as those of Dublin and other cities. We have also issued special clinical reports on subjects of interest that we have reason to know have given much satisfaction, and which we propose to continue. Injections into the veins and ununited fractures are topics thus treated which may be mentioned. Under the title "Theories of Cholera," a series of articles of a more critical nature has appeared, in which we have had the assistance of severalable writers. Another great subject com-

menced, and to be continued, is that of "Wine and its Adulterations," on which five articles have already been issued, and these have created interest in unexpected quarters. Matters in relation to pharmacy group themselves naturally round the new edition of the *British Pharmacopœia*, which has been analysed in various ways.

The state of the workhouses and the Poor-law medical service throughout the three kingdoms has been done full justice to in our columns, and we have done all that we could to secure for our Poor-law brethren the speedy redress of their grievances. We may say the same for the Army, Navy, and Indian medical officers, all of which we have had occasion to write about.

The rights of practitioners have been assailed in a manner to demand the utmost exertion. Amongst individuals, we may mention Messrs. Field and Statham, both of whom must have felt grateful for the sympathy we tendered, and which has been echoed by all the profession.

Medico-legal investigations of more public consequence have been closely watched, and commented upon. The value of our comments will be here exemplified by mentioning, that they have not only been reproduced in America, but that translations have been widely circulated in Europe.

The same remark applies to the valuable accounts of the cerebro-spinal epidemic in Dublin, that appeared in our columns, and have since been, we believe, more diffused than any medical productions of the year.

As to the many medical societies our pages are full of their reports. The congress of the medical men in Dublin was fully reported by us, although that society has a journal of its own. The proceedings of the British Association for the Advancement of Science, and the Social Science Association at Dundee and Belfast were sifted for our readers. The new St. Andrews Graduates' Association, which promises to be one of the most vigorous of these bodies, has had its inception and doings more fully chronicled by us than by any journal. Nor have we forgotten the International Medical Congress of Paris, nor any of the smaller and less pretentious, but perhaps, not less useful societies that have moved for the advance of medicine. In this place, may be named the reports of the Gulstonian, Croonian, and Lumleian Lectures, all of them this year so remarkable, and all accurately reported by us.

But the exigencies of our share compel us to stop this recapitulation before it is half completed. Other subjects and other departments have had as much attention as these. The interested reader can refer to his volumes. To our best supporters, we can only repeat our assurance that no effort shall be wanting on our part to maintain and augment the position of our journal, and we trust that they will not only continue their support, but enlist others in the same cause, and so increase our ability to do more.

1868.

Appearing as this number does on the first day of 1868, we can scarcely resist the opportunity it affords us of wishing all our readers the many blessings summed up so curtly in the little phrase so popular to day, "A Happy New Year."

It is thus that we are enabled to salute at once thousands of readers united to us, not only by the bonds of a common profession, but a common effort to work together, each in his sphere, towards a great and good object—that of maintaining and advancing that profession, and encouraging every worthy member of it to pursue his course with such ardour and zeal, that when life shall have passed away, as the year that has just closed, he may enter on the new existence with as much *certainty* as he looks into this new year with *hope*.

For ourselves, we prefer deeds to promises, and shall therefore content ourselves with merely saying, that we are prepared to combat error as earnestly, to promote what we think to be right as fearlessly as any of the conductors of this journal for the last twenty-eight years or more. Petty jealousies will not disturb us; we shall keep aloof from them. The rivalries of hostile cliques will be indifferent to us; we shall ignore both, or reprove both, as seems right to our own conscience. The opposition of irreconcilable doctrines must interest us; we shall criticise and examine them without reference to the authors of them. The rights and wrongs of our brethren, in every sphere, will have our constant consideration. We shall uphold the former, and call for the redress of the latter as loudly and as constantly as ever.

The progress of the science and art of healing in all its branches, and through all its ramifications, will be constantly watched; we hope to furnish our subscribers with all the information they will need. Literature, medical and scientific, English and foreign, cannot be dethroned; we shall review it as copiously as heretofore, perhaps more so. We have long held a front place in this department, and have lately tried to give more space to it. Witness our many translations, our gleanings introduced last year, and the length of some of our analytical and critical notices of books. These we hope to make still more valuable, and thus enable us to hold our place with advancing knowledge as the most critical medical periodical.

This scanty programme will be ample for our most ardent admirers. One word in conclusion to each of them. They can best serve us by supplementing it for us by pointing out to their friends what we have achieved in the past, and thus securing for us new support. We have lately lavished on the journal, time, money, work, and influence. Let each one contribute also his mite—both his practical experience in the form of communications, and his influence by obtaining new subscribers. We shall then be able to carry out more effectually all our designs, and each of our three editions, English, Irish, and Scotch, will occupy a position worthy of the men whose interests it advocates.

THE SULPHUR CURE.

It is seldom that a pamphlet devoted to any medical subject attains a literary success. Messrs. Edmonston and Douglas have, however, had the good fortune last year to issue several editions of two pamphlets about sulphur and its use as a remedial agent. The fifth edition of the first, by Dr. Dewar,* of Kircaldy; and the seventh edition of the second, by Mr. Pairman,† lie before us. Not that we are indebted to the publishers or authors for them in the usual way, for they have not been sent to us, but a good friend connected with a non-medical periodical has kindly furnished us with his copies, and as each bears on the title "with the publisher's compliments" *in type*, we presume

* On the Application of Sulphurous Acid, Gaseous and Liquid, to the Prevention, Limitation, and Cure of Contagious Diseases. By James Dewar, M.D.

† The Great Sulphur Cure brought to the Test. By Robert Pairman.

they have been widely distributed. Yet we know not why they should be kept from medical editors, for although they are rather of the popular kind, and Mr. PAIRMAN'S actually takes the form of a letter to the Minister of Biggar, we see nothing in either to be ashamed of. Dr. DEWAR'S pamphlet was intended to call attention to the value of sulphurous acid either in fumes or in the form of spray, especially in contagious diseases and in some affections of the mucous membrane of the air passages.

It was a production he need not blush to acknowledge, and enforced some points with considerable ability. Yet it made no stir in the world until a copy, by a curious accident, related in a pleasant style, fell into the hands of Mr. PAIRMAN, of Biggar, who straightway began to employ the remedy, and with such success as to make him a most enthusiastic believer in its virtues. Gifted with a facility of writing seldom met with in a "country doctor," as he calls himself, and a power of drawing amusement from the most unexpected sources, our convert immediately commences to proselytise. This new medical gospel, though unfolded at Kircaldy, receives its full development at Biggar, and threatens to envelope the whole art of healing in one purifying and invigorating vapour. So grand a curative agent is in fact announced, that its apostle expresses himself as positively relieved on meeting with one unsuccessful case. Talk of a panacea after that!—who will listen?

But let not the reader conclude that we are speaking of a new quackery. Nothing of the kind. Enthusiasm there is, but of a kind we could wish more general, if it should diffuse over medical literature the lightness and readableness of Mr. PAIRMAN'S pamphlet. We shall perhaps be forgiven the countenance we are thus lending his want of gravity, if we announce that Professor LYON PLAYFAIR and Dr. JOSEPH BELL, as well as other eminent men, have been fairly hooked by the same bait. This "pith without polish," or, as some spoke of the style as "inclined to be jaunty," has, we suspect, contributed much to the spread of the new faith; for, after all, there is not so very much new in the notions so ardently propagated. The striking fact is the extent to which faith in the "sulphur cure" is carried.

As a disinfectant, sulphur fumigation dates from the earliest times. Professor PLAYFAIR, in his letter on the new cure, mentions its employment by Ulysses, but even then it was venerable with age, and used as a matter of course. We should be inclined, at the very least, to date it from—

> "The school of Hermes Trismegistus,
> Who uttered his oracles sublime,
> Before the Olympiads in the dew
> Of the early dawn and dusk of time,
> The reign of dateless old Hephæstus."

And surely to the use of nothing else could we more fitly apply the description of the poet—

> "starting from its fountain head,
> Under the lotus-leaves of Isis,
> From the dead demi-gods of eld,
> Through long unbroken lines of Kings,
> Its course the sacred art has held,
> Unchecked, unchanged by man's devices.
> This art the Arabian Geber taught,
> And in Alembics finely wrought,
> Distilling . . . . discovered
> The secret that so long had hovered
> Upon the misty verge of Truth,
> The Elixir of Perpetual Youth."

Never has drug maintained a more universal sway than sulphur. Externally and internally for the most opposite purposes has it been used by the Profession and by the public. By both, sulphur fumes, sulphur ointment, and brimstone and treacle, are still in every day use. Further, liquid sulphurous acid has been long enough in use by the Profession, so that, after all, we reduce the novelty to the use of spray, which was not employed until the atomizer came into vogue. But we readily admit that their faith in sulphur has carried the writers of the pamphlets before us far ahead of others, and we doubt whether many will follow them, when in their enthusiasm, they would persuade us that the chimneys which evolve sulphurous gas in our manufacturing districts, and the London fogs, which contain it, are the chief preservatives of the health of the dwellers in these localities. If so, by all means let us multiply such chimneys, abolish PALMERSTON'S Smoke Act, and congratulate all cockneys on the blessings of the fogs which so frequently encompass them.

THE PREVENTION OF SYPHILITIC DISEASE.

MR. BERKELEY HILL, the Honorary Secretary of the Association for Promoting the Extension of the Contagious Diseases Act of 1866 to the civil population, has published the results of his investigations into the working of the Act in Chatham and Portsmouth.

It appears that the arrangements for the systematic examination of the women who come within reach of this Act are anything but perfect, and though some good has been effected by it, still the advantages which have accrued are very much less than they might have been under a more stringent system.

In the first place, it is only notorious prostitutes who can be inspected, and a great many women propagate clandestinely the disease without check. Again, the Government only takes cognizance of the existence of open chancres, notwithstanding the Venereal Committee report that secondary syphilis is undoubtedly contagious. Moreover, a woman may have spread the disease far and wide before she is suspected of the taint.

Mr. Hill suggests that the periodical examination of *all* prostitutes is an essential amendment, and believes that it would not evoke as much objection on the part of the women themselves as the singling out of one or two from a number.

The accommodation is stated to be altogether insufficient for the number of cases of disease, insomuch that many women known to be diseased must wait several days for admission. The average stay in hospital for each patient is thirty-six days.

The restriction of the Act and its means of cure to a few towns is found to have the effect of attracting to those places numbers of diseased women from neighbouring localities, and as they often remain in the town for a week before applying for admission, the spread of the disease is much increased, and as these towns are often filled with fresh importations of men, who come in for target practice and other purposes, the disease is carried away by them. Despite all these shortcomings, the working of the Act has been attended with sufficient benefit to afford great promise from an extension of its provisions more widely. Dr. Anderson, Deputy Inspector-General of Melville Hospital, supplied Dr. Hill with the following statistics, to prove its good effect produced on the health of the Marines, by the working of the Act.

The strength of the corps was about 1500. This is borne out by comparing the entries for the third quarter

of 1864 with those of the corresponding quarter of 1867, which were—

1864.	Syphilis .	. 95 cases.	1867.	Syphilis	. 45 cases.
	Gonorrhœa	. 21 „		Gonorrhœa	. 33 „
	Total,	116		Total,	78

Dr. Hill's picture of the vice prevalent in Chatham, Rochester, and Stroud, is almost incredibly awful, and if the sensibilities of the Legislature were not shocked by the unveiling of such fearful corruption, the sore could hardly be longer allowed to spread on unchecked.

Notes on Current Topics.

The Gaelic Society, London.

This institution appears to have resulted from the efforts made at various times by the Highlanders resident in London, to unite for social intercourse, and to keep alive their attachment to the dress, manners, and language of their native country, in the land of the Anglo-Saxon. Such a society was first formed in 1778, and when the law which made it felony to wear the highland dress in England was repealed, it increased both in numbers and importance, and at length became chartered as the "Royal Highland Society." Whether, ultimately, it was dissolved or not does not appear, but, subsequently, another was formed, called the "Society of Universal Goodwill," which, however, soon disappeared. Others followed—one termed the "Gaelic Society" in 1808; two more in 1815, the society of the "Sons of Morven," and the "Club of true Highlanders." These adopted different methods of cherishing their national reminiscences, and met with varied success. The present society seems to be the revival of that which was originated in 1808, devoted to more general and worthy ends. It has a committee of management, a president, a treasurer, and a secretary, who is also librarian. The members hold a general meeting every month at 14, Bedford-row, Holborn, and conduct all their proceedings in the Gaelic language. The society is now in a prosperous state, and well supported, and has done more than any previous one of its kind to preserve their nationality, by bringing Scotchmen into association from time to time for their mutual benefit, and by cheering them with the energetic and suggestive accents of their mother tongue.

The Public Health.

The deaths in London last week again exceeded the average; but this time the number in excess is only 74. Taking the large towns, we find the following numbers express the annual rates of mortality for the week:—For the whole kingdom 28 per 1000 persons living, for London 26, Edinburgh 29, Dublin 29. The rate was—33 in Bristol, 30 in Birmingham, 33 in Liverpool, 35 in Manchester, 31 in Salford, 23 in Sheffield, 23 in Leeds, 31 in Hull, 22 in Newcastle-upon-Tyne, and 28 in Glasgow.

The deaths registered in London during the week were 1561, the average number of deaths for that week being with a correction for increase of population 1487.

778 persons died under 20 years of age, 172 were 20 and under 40, 240 were 40 and under 60, 302 were 60 and under 80, and 69 were 80 years of age and upwards.

Zymotic diseases destroyed the lives of 301 persons, 241 of whom were under 20 years of age. Whooping-cough was the most fatal disease in the zymotic class, and caused the deaths of 56 children; 55 deaths occurred from measles; 48 deaths occurred from scarlatina; 21 deaths from small-pox, 4 from diphtheria, 44 from typhus, and 14 from diarrhœa were registered in the week.

From diseases of the respiratory organs (exclusive of phthisis) 409 persons died; of this number bronchitis carried off 244 persons, pneumonia 111, and asthma 14.

159 persons died from phthisis, 67 from diseases of the heart, and 189 from diseases of the brain and nervous system.

Nitro-Glycerine.

The foolhardiness of keeping large quantities of this dangerous compound, and incurring thereby the risk of fearful explosions, is the more reprehensible, because by the simplest means the agent can be rendered perfectly harmless, and restored to its full efficiency just as easily. It is only necessary to add to the nitro-glycerine a small proportion of alcohol wood naphtha, or methylated spirit, when it loses all its explosive power, and can be in this condition kept for an unlimited period. If at any time it is required for use, the solution needs only to be poured into water, when the nitro-glycerine is precipitated in all its integrity.

A defence of this well-abused explosive has been published by its chief manufacturer. Mr. Nobel succeeds completely in disposing of a number of exaggerated statements that have been circulcated during the late alarm, and he produces a number of stories of the liquid *not* having exploded when it might have been expected to do so. His chief point, however, seems to us to fail. He urges that it is not dangerous in the hands of those who understand it, and estimates that some 50,000 workmen are familiar with its properties. The reply to this is, it will get into the hands of those who do *not* know anything about it, and it is during its passage through them that the protection asked for is needed. The Newcastle explosion also indicates that it is not safe, even in the hands of those who are on their guard, and are to *some extent* acquainted with its nature.

Nitro-glycerine is fluid at ordinary temperatures, but crystallises when exposed to a low degree of heat. With these facts in view, the legislature cannot have the least difficulty in forbidding the accumulation of even small quantities of this dangerous agent.

The New Merchant Shipping Act.

This Act, passed in August last (30th and 31st of Victoria, cap. 124), and to which we have so often alluded, comes into operation this morning, and will apply to any ship which belongs to the United Kingdom, and is absent therefrom at the time when the act comes into operation, when such ship has returned to the United Kingdom. Rules and regulations are to be made by the Board of Trade as to the medical stores, including a supply of lime or lemon juice and other anti-scorbutics. A penalty of £20 may be inflicted for selling medicines of a bad quality. Whenever it is shown that any seaman or apprentice is ill through the neglect of the master or owner in the supply of food, accommodation, medicine, &c., the wages are to be paid by such master or owner, but where a seaman is incapable of performing his duty through his own wilful act or default, the wages to become forfeited. On board British ships a seaman or apprentice is to have a space appropriated for his use on deck of not less than 72 cubic feet and 12 superficial feet. Medical inspectors

are to be appointed at ports, &c. Offences committed by British subjects are to be dealt with by the Courts having the ordinary jurisdiction. The harbour-master at Holyhead may be appointed a justice of the peace, within the limits within which he is empowered to act in harbour matters, and to exercise the jurisdiction of a stipendiary magistrate, notwithstanding he may not be qualified by estate to be a justice of the peace. In a letter to the *Times*, Dr. Domett Stone, dating from the Medical Club, powerfully maintains the view he has already expressed respecting the insufficiency of this Act, and declares it will soon need amending. Dr. Stone would have an "obligatory diet scale," in addition to the rules provided by the Act, and in that alone he believes we possess the means of eradicating scurvy. The revelations that have been made as to the state of merchant seamen are surely sufficient to give force to his arguments.

King's College, London.

We hear that the Rev. Dr. Jelf, who has so long filled the office of Principal at this College, has now resigned. A large number of medical men were educated at King's during his principalship, and remember him with feelings of regard.

The New Clinical Society.

The new Society, the formation of which we announced in a late number, will hold its inaugural meeting under the presidency of Sir Thomas Watson, at the Rooms in Berners-street, on the 10th inst.

Outbreak of Cholera in an Emigrant Ship.

A most violent outbreak of the disease has taken place in the ship "Lord Brougham," which arrived at New York on the 6th of December. The day after the ship left Hamburgh with 383 Germans, the disease broke out, and it raged for forty-six days, as many as 100 persons being sick in the ship at one time, and 73 deaths having occurred. The sufferings of the passengers and crew were dreadful, and the passengers who landed at New York were in a state of the utmost debility.

Medical Graduation in the University of Dublin.

A communication addressed by the Rev. Professor Haughton, medical registrar to Trinity College, to a medical contemporary, contains the following passage :—

"As respects the medical profession, the amalgamation of various denominational colleges under one university would be peculiarly injurious, as it would at once destroy the growing desire expressed by Irish physicians for an education in arts equal to that enjoyed by the candidates for the church and bar. The extent of this desire in Dublin may be estimated by the fact, that out of 797 students of medicine at present in the Dublin schools, 235 are students in arts, and intend to graduate in both arts and medicine in Trinity College."

We are curious to learn how such a statement as the foregoing, put forward by the official medical representative of Trinity College, can be justified, especially as the fulfilment of the prophecy depends on the future of the next four years. We should look forward with the utmost satisfaction to the day when all members of the profession should possess a thorough University education in arts; but we are perfectly well aware that such a consummation is simply Utopian, and we do not see that its fulfilment need necessarily be imperilled by the taking of the Arts degree in another University than Trinity College.

We have endeavoured to show that the estimate of 797 medical students in Dublin is totally unreliable, and we cannot conceive by what facts, or from what line of argument, Professor Haughton justifies the astonishing statement that the 235 students "intend to graduate in both arts and medicine in Trinity College."

The Sanitary Condition of the Troops in Abyssinia.

The following communication, extracted from a letter addressed by a member of the Medical Corps to his father, a well-known Irish provincial Surgeon, will be read with interest and satisfaction :—

"Camp Hadoda, Nov. 12, 1867.

"So far as we can now see, the difficulties to be overcome are not of the insuperable character prophesied by people totally ignorant of the country and military affairs in general.

"We are on an exploring expedition now. Colonel Merewether, Phayne, Wilkins, Munzinger, and I form the party. We left Mulkeeto on the evening of the 4th, and went 55 miles up the Nebbagody torrent to a place 5600 feet above the sea, and about 10 miles north of Senafi. The Nebbagody is not marked on any of the maps, but you can make out our position on Keith Johnston. We were close to Mount Sowera. Between it and Senafi we ascended a hill 7000 feet high, and could see the Abyssinian plateau at the direct distance of about five miles. Senafi is about this distance also, but the bed of the torrent in which the way lies is very winding. Such a jolly climate—max. 77, min. 51—very cold—a glorious stream of water, clear as chrystal, and cold as ice. I had to put on warm clothing, and the Sepoys went about with their "Europe Blankets" around them. For political reasons, we did not go into the enemies country, but ascertained that there was no plateau short of the Abyssinian highlands where troops could be placed—that the road was easily practicable for infantry, and that the only drawback on the route is a want of water, in one part of it being 30 miles from one running stream to another. To-day a party proceeded to a place about half way, to dig wells. If water be found (and the natives assert that they recollect wells to be there years ago) this great difficulty vanishes; otherwise, it will be necessary to have water conveyed in skins. We are off to-morrow up the Hadass to Takonda. The route has already been gone over in greater part, and water found in abundance at distances of from four to eight miles. A few companies of sappers will make the road practicable in a very short time, even for artillery. The transport train is the great difficulty at present. Mules are pouring in on all sides, but it will take a couple of months to lick the motley crew of muleteers into shape, but I have no doubt that this department will be worked well. I know nothing as to the medical arrangements, except that Dr. Currie, one of the best men in our department, is coming as P.M.O. You need not be apprehensive about the sick. Sir Robert Napier is one of the kindest men, and always pays particular attention to that point. So far, we have been all well, hardly a soul sick. One of the 3rd Cavalry died of Bright's disease, and a camp follower of heart disease. A few cases of Filaria (Guiniaworm) have been treated in the hospital of the 10th Native Infantry, of course contracted in India. A little later and the *Times* might have had a gushing article. A few cavalry horses have died, most probably in consequence of the sea voyage. The position now is Mulkeetto, the landing-place and great depôt for stores. A railway will be at once laid down to Korneylo or Gorneylo, twelve miles from the place where there is good water. There will be two good routes, one up to Senafi and the other by the Hadass.

"The 33rd and rest of the Scindi Brigade are to be here immediately, and the plot thickens."

Signing of Certificates.

The Secretaries of each of the recognised medical educational institutions of the United Kingdom, have received from the Secretary of the Royal College of Surgeons of London, a communication with reference to a proposed arrangement, by which all certificates of attendance at hospital practice and lectures may be signed by a single officer, to whom the duty shall be entrusted in each school.

We extract the following clauses from the communication :—

"The attention of the President of this College has been called to the great inconvenience occasioned both to teachers and students, by the multiplicity of signatures now required by this College to be affixed to the certificates of attendance on lectures, hospital practice, &c., of candidates for its diplomas ; and he is consequently desirous of bringing the subject before the Court of Examiners, in order, if possible, to simplify the certificates without in any way vitiating their authenticity and reliable character.

"You will be aware that in some medical schools it is already the practice to require that the accuracy of each certificate should be guaranteed, before it is signed by the teacher, by the initials or signature of the dean, secretary, or other regularly appointed officer of the medical school ; and that it is on the faith of those initials or signature that the certificate is signed by the teacher—a practice which would lead to the conclusion that in those schools the signatures of teachers cannot be regarded otherwise than unnecessary."

We are at a loss to discover what advantage it is anticipated may accrue from this arrangement, which, it appears to us, will serve only to make the existing certificate system even more defective than it is at present. The signature of certificates is surely not a great labour to expect from teachers, and as, in any case, if any discretion at all be exercised by the teacher, a communication must take place in each individual case between him and the officer who signs, we do not see how the present machinery can be simplified, by interposing another official between the teacher and the student. Lightly as the responsibility of certifying to the diligence of a student is at present regarded, it would become a mere farce if the performance of the act were shifted into other hands, and we would rather see the Council of the College taking steps to insure the veracity of these certificates, than going with the tide in the certificate buying system.

The Lord Mayoralty of Dublin.

The civic chair of Dublin is this day occupied by a member of our Profession, Dr. William Carroll, for many years Medical Officer to the Extern Department of the Coombe Lying-in Hospital, and a respected member of the Town Council. Dr. Carroll, we believe, was largely instrumental in securing for the Coombe Hospital the Royal Charter and the grant lately accorded to that institution, and thus obtaining for it an official recognition as an educational establishment.

The Walrus.

This creature, lately the object of so much interest at the Zoological Gardens, Regent's Park, has perished of debility, said to have been brought on by entozoa.

Dr. William Ogle, who has lately been elected Assistant Physician to St. George's Hospital, where he has for some years held the Chair of Physiology, is a candidate for the Professorship of Botany, in the University of Oxford, vacant by the decease of Dr. Daubeny. Mr. Church, who now holds the office of Lee's Reader in Anatomy, is another candidate, and it is said that the Rev. G. Henslow will also come forward.

Mr. J. J. Henley succeeds Dr. Edward Smith as Poor-law Inspector. Dr. Smith is to preside over the Medical Department of the office of the Poor-law Board.

Dr. Henry Lawson, editor of the *Popular Science Review*, is the chief candidate for the appointment of Assistant-Physician to St. Mary's Hospital. Dr. Lawson has been for some years connected with the School, and will probably have the unanimous support of his colleagues.

A number of medical students in London are being sworn in as "special constables." This movement seems to have been taken up with great spirit by all classes—in the first few days more than 30,000 specials having been enrolled.

In consequence of an outbreak of fever at Ferling, the Privy Council have sent Dr. Thorne to report. He has previously been employed in a similar capacity.

The Queen and the Prince of Wales both continue their attentions to the sufferers from the Clerkenwell explosion, in St. Bartholomew's and the Royal Free Hospitals.

THE UNIVERSITY OF ST. ANDREWS, AND ITS MEDICAL GRADUATES.

By Leonard W. Sedgwick, M.D., Hon. Secretary of the St. Andrews Medical Graduates' Association.

(Part of a paper read at the late General Session of the Association.)

The University of St. Andrews from its locality has always been, and must continue to be, in so far as medicine is concerned, an examining, not a directly educating body. Without a large hospital, it could not be a school of physic, and so its doctors of medicine, though in every sense of the word graduates, have, with very few exceptions, never been students of their University.

The University of London has a similar function, and while regulating the mode in which its graduates shall obtain their knowledge, it offers no teaching itself, and it allows the student a wide latitude in his selection of a place of study.

The other universities are directly educational institutions as well as examining bodies.

[Dr. Sedgwick here considered the mode of Government in the other universities, and the position of the medical graduates in them. He then continued as follows] :—

In all these noble institutions then, every doctor of medicine has a voice in the government of his university, and a vote for its representative in Parliament. Nationality is nothing ; if a man holds a degree of M.A. or one above it, keeps his name on the books by the payment of the proper fees, and obeys the laws of his country, he is not deprived of the rights pertaining to his degree on any pretence whatever.

Now let us turn to St. Andrews, to the university, the breath of whose life for years has been its medical graduates, and let us see how it is governed. First there is the general council, which consists of the chancellor and the other members of the university court, from and after their first election, the professors, all masters of arts of the university, doctors of medicine of the university, who have as matriculated students of the university, given regular attendance on classes in any of the faculties in the university during four complete sessions, and of all who, within three years after the passing of the Scottish Universities Act (2nd Aug. 1858), established that as matriculated students, they had attended the university for four complete sessions, or for three complete sessions, in the university, and a fourth at another Scottish University, the attendance for at least two or three sessions having been in the Faculty of Arts. All members of the General Council must be twenty-one years of age, and must have their names registered in a book kept for that purpose by each university. Each member on being first registered must pay a fee of five shillings, and also afterwards two shillings and sixpence yearly on the fifteenth of October for the year ensuing, or a composition fee of one pound. The General Council meets twice a-year ; it elects the Chancellor and one of the Assessors in the University Court, and it is empowered to "Take into consideration all questions effecting the well-being and prosperity of the university, and to make representations from time to time on such questions to the university court, who shall con.

sider the same, and return to the Council their deliverance thereon." Secondly, there is the Senatus Academicus, composed of the two Principals and the Professors of both the Colleges. It has the ordinary superintendence and regulation of the teaching and discipline of the university, and the administration of its property and revenues, subject to the control and review of the University Court.

And lastly, there is the University Court itself. It consists of the rector, the senior principal, an assessor nominated by the chancellor, an assessor nominated by the rector, an assessor elected by the General Council, and an assessor elected by the Senatus Academicus. The University Court is invested with the following powers:—

1st. To review all decisions of the Senatus Academicus, and to be a court of appeal from the Senatus in every case, except as otherwise provided in the Universities' Act.

2nd. To effect improvements in the internal arrangements of the university, after due communication with the Senatus Academicus, and with the sanction of the chancellor, provided that all such proposed improvements shall be submitted to the university council for their consideration.

3rd. To require due attention on the part of the professors, to regulations as to the mode of teaching and other duties imposed on the professors.

4th. To fix and regulate, from time to time, the fees in the several classes.

5th. Upon sufficient cause shown, and after due investigation, to censure a principal or professor, or to suspend him from his office and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire from his office on a retiring allowance, or to deprive him of his office; and during the suspension of any professor, to make due provision for the teaching of his class: provided always that no such sentence of censure, suspension, or deprivation, or requisition on a professor to retire from his office shall have any effect until it has been approved by her Majesty in Council.

6th. To enquire into and control the administration by the Senatus Academicus or principal and professors of any college of the revenue, expenditure, and all the pecuniary concerns of the university and of any college therein, including funds for bursaries and other purposes. And where, we may well ask is the representation of the faculty of medicine here?

The University Court consists of six members, of whom one is a doctor of medicine, but not of St. Andrews; he is an Edinburgh graduate.

The Senatus Academicus consists of fourteen members; three are M.D.'s, but again all belong to Edinburgh.

The General Council consists of 368 members, of whom eleven are M.D.'s, and here is the representation of the medical graduates of St. Andrews; for there is one doctor and one bachelor of medicine of the university on it. But perhaps the graduates in other faculties are so numerous that, after all, this may be a fair proportion. Listen to what the registrar of the university says in a return presented to Parliament last session on the motion of Mr. M'Laren.

"There are at present 368 members of the General Council, a further number of sixty-nine are entitled to become so on payment of their fees, thus making 437." This is the number of all the non-medical graduates of the university. The medical graduates are some 1300, and thus a minority numbering just one quarter of the whole is master of the position. But, it may be urged, the proposed Reform Bill would modify this, inasmuch as all M.D.'s who have passed since 1863 would be added to the General Council. It is true they would, and they amount to forty-six; but what are forty-six out of 1300, and as yet even these are not. So at the present time remains the government of the University of St. Andrews, and so are treated its medical graduates; not as in other universities equal in rights and in privileges to their fellow-graduates, but an outcast class, excluded, unrecognised. Strange contrast this little world to the outer and the greater. In the one every ratepaying householder, gentle and simple, rich and poor, learned and ignorant, alike having his vote for the man who is to speak for him in the great council of the nation; in the other a large and intelligent majority, men highly educated and yet practical, whose daily duties require them ever to be reducing thought into action, the very persons if there be such entitled to self-government, tongue-tied and powerless, without a vote or a voice.

Surely such a state of things should not be allowed to continue. It seems a marvel that it could ever have arisen. But monstrous as is the injustice, it is sure to last unless we betsir ourselves actively, not in a momentary burst of enthusiasm, but with a deep conviction of the need of steady, earnest work; for the power of inertia is great. If I have made this account of the government of the university clear to you, I have, I think, in the very narrative pointed out the root of the present evils. It is our utter want of connection with the university. We pass our examination, pay our fees and are capped, and then we go; Alma Mater knows us no more. With no one to speak for us, no one to care for us, what wonder that our interests are never considered, our rights and privileges never asserted. Scattered over the whole kingdom, with no bond of connection, we were powerless until this association was formed, but now I trust another era has begun for us, and united we shall make ourselves heard and felt. Reform, then, is needed, and it is simple as it is necessary, just as it is desirable. Simple, because we require only to be put upon the General Council of our University; just, because what we ask is only equal rights with our fellow-graduates. If clause XXX. of the Scotch Reform Bill were modified as follows, we should obtain all that we could desire in this matter.

"Besides the persons constituting the General Council of each of the said universities in virtue of the sixth section of the Act twenty-first and twenty-second, Victoria, chapter eighty-three, every person shall be entitled to be a member of any such General council on whom the university has, after examination, conferred the degree of doctor of medicine, or doctor of science, or bachelor of divinity, or bachelor of laws, or bachelor of medicine and master in surgery, and the name of every such person shall be registered in the book kept for that purpose, on payment of the usual annual or other fee."

This is clause XXX as it now stands, omitting simply the paragraph which restricts the privilege to those graduates who have attended in St. Andrews, in the faculty to which the degree conferred belongs, two or more classes qualifying for such a degree. The disfranchising paragraph is short.

We should thus be placed on the general council of the university, and as the previous clause confers the franchise on all members of the General Council, we should obtain at the same time, a voice in the Government of our university, and a vote for its representation in Parliament. The university of St. Andrews has never required, and could not require of the candidates for medical degrees, residence within its walls, as a *sine qua non*, but neither does the university of London, and Edinburgh asks for only one year as a necessity. Is it not then unjust in the highest degree that we, who have complied with all the regulations of the university, and have obtained its degree of M.D., should be deprived of the dearly-prized right of a free tongue and an equal voice, which the medical graduates of all other universities possess?

I need not say more on this point, but there is another matter which, in the interest of the university itself requires revision, and that is the following regulation: "The degree of doctor of medicine may be conferred by the university of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the university, to entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge: provided always, that degrees shall not be conferred under this section to a greater number than ten in any one year."

If it be right to grant ten degrees under these circumstances, what possible reason can there be for refusing to grant fifteen or any other number, if so many candidates offer themselves, and are able to pass the examination. No principle is concerned in this charmed number ten, neither is there any principle concerned in the limitation by numbers at all. Its action, whilst unjust to all candidates beyond the ten who may be allowed to graduate, must be injurious to the university by cutting of its supplies. The framers of the regulation doubtless intended by its means to render it impossible for any unfit person to obtain the degree, at least there is no other conceivable purpose to be effected by it, consistently with an honest wish for the welfare of the university. But speaking with all deference and respect to the distinguished Commissioners, under whose instructions it was framed, I cannot but call it a clumsy and fatal device. For by it the earliest applicants and not the most worthy candidates, will be admitted to the degree, and at no distant period the university must die out by a process of starvation. A far better plan now exists for securing a satisfactory examination, and that is the power of visitation possessed by the medical council. Year by year this will become more of a reality and less of a form, and even now it has

borne good fruit in a very much improved examination, at more than one of the Medical Corporations. It would enhance the worth of the degree, not by limiting the number of candidates, but by enacting a high standard of acquirement. There is a still further consideration to be entertained: assuming that the alteration of the regulations which I have indicated is a desirable one, it is also practicable. There is a general impression abroad that to effect such a change an Act of Parliament is necessary, and this would be beyond our powers. But the matter does not stand thus. On reference to the Scottish Universities Act, which I have quoted so frequently, it will be found that there are no regulations for the granting of degrees there, but that by it, twelve noblemen and gentlemen, with our present Chancellor, His Grace the Duke of Argyll at their head, were appointed Commissioners, and empowered, among other things, to "make rules for the management and ordering of the said universities, the manner and conditions in, and under which students shall be admitted thereto, the course of study and manner of teaching therein, the amount and exaction of fees, the manner of examination with the qualifications, appointment, and number of examiners, and the amount and manner of their remuneration, the granting of degrees, whether in arts, divinity, law, or medicine, and to provide that, in so far as shall be practicable, and in the opinion of the Commissioners conducive to the well-being of the universities, and to the advancement of learning, the course of study, the manner of examination, and the conditions under which degrees are to be conferred, shall be uniform in all the universities of Scotland."

But these Commissioners who, by this authority have drawn up the regulations for the granting of degrees in medicine, which are now in operation, were not a permanent body. The act declares that the "powers hereby conferred on the Commissioners shall be in force until the first day of January, one thousand eight hundred and sixty-two, and it shall be lawful to Her Majesty, by and with the advice of Her Privy Council, to continue the same until the first day of January, one thousand eight hundred and sixty-three, and no longer."

And as they are defunct now, and the University Court is the ruling power in their stead, for what says the Act?—Clause XIX. runs thus:—

"During the subsistence and exercise of the powers of the Commissioners, the powers hereinbefore conferred on the University Courts shall be exercised in subordination to, and so as not to conflict with the powers of the Commissioners. But any of the rules, statutes, and ordinances to be framed and passed by the Commissioners, as hereinbefore provided, may, at any time after the expiration of the powers herein conferred on the Commissioners, be altered or revoked by the University Court of the University to which the same are applicable, but only with the consent, expressed in writing, of the Chancellor thereof, and with the approval of Her Majesty in Council."

The University Court then is the body to whom we must appeal, to it we must carry our grievances, and by it, with the consent of the Chancellor of University and of the Queen in Council, they will surely be remedied. For it cannot be doubted that if we prove the existence of an evil, it will not be long allowed to continue.

But we must not ignore the existence of objections to the possession by the University of any power at all to grant the degree M.D. to any non-resident.

Independently of the long possession of this power by the University, and which, in common justice, should not be withdrawn except for good and sound reasons, it is not difficult, I think, to show that such a power is most desirable and advantageous to the University, the profession, and the public.

The University of St. Andrews has no medical school, no large hospital to attract students, and if it is to grant medical degrees at all, it must be to non-residents; for if medical knowledge is required, a student must go elsewhere to obtain it.

Again, it is most desirable for the medical profession that, guarded by the one safeguard, a stringent examination, any of its members should at any time, if so disposed and competent, be able to obtain the doctorate. It is quite unnecessary that I should instance examples of the need of such an University of St. Andrews, but I cannot refrain from directing your attention to an advertisement in last week's medical journals for an Assistant-Physician to the Consumption Hospital at Brompton—"Candidates must be Members or Fellows of the College of Physicians of London, *and* Doctor, or Bachelor of Medicine of a British University." Suppose a man, after some years of practice, led by inclination or accident, to devote himself chiefly to the study of chest diseases; suppose him (no unnatural idea) wishful to be connected with this special hospital, he can without any residence at any special place, become a candidate for the diploma of the College of Physicians, but unless he is more than forty years of age, and unless fewer than ten men have applied to be examined before him, he cannot during that year obtain the M.D. degree. When the next year comes, the chance may have gone for the hospital appointment. Can there be a more cogent reason for leaving the University doors open to such a man as this, provided he can pass the required examination? You may say that when a man has been some years in practice he will not be at the trouble to "get up" minute Anatomy, Chemistry, Physiology, or the refinements of Medicine and Surgery, and would not be able to pass a sufficiently satisfactory examination if he tried. I do not for a moment believe it. Very many here present are practical refutations of this objection. But even if it were so, the existence of a stringent examination would itself prevent any evil accruing in this way, for if no one of such men could pass, no one would pass. Prevent a man from offering himself because you think he could not satisfy the examiners, and you presumptuously bend facts to your theory. Provide a stringent examination, and the facts take care of themselves, there is no need of a theory. This does not at all touch the question of how best to educate the future medical practitioner. No doubt several years spent in study at the outset of his career, in accordance with the regulations of such a University as that of London, is of all ways of obtaining medical knowledge, for most people the best. But the best for most is not the best for all, and the best cannot always be done. If from a scanty purse or other circumstances, a man has to content himself with the minimum of time for study, and forego the honour of a doctor's degree, because he can live only by the sweat of his brow, is that a reason for shutting him out from it for ever. The whole spirit of modern British legislation and thought is against such a monopoly, such an exclusion. Granted that it is difficult when harassed by the cares and worries of actual practice, with others dearer than one's self to provide for, to keep pace with the scientific progress of the day, and to satisfy the requirements of a University examination; all the more honour is due to the man who successfully accomplishes it, all the more reason to put no unnecessary difficulty in his path.

But this provision for which I am contending is eminently advantageous to the public. It is of all things, for it is most important that every stimulus should be given to the acquirement by the medical practitioner of knowledge beyond the more immediate and necessary contingencies of the day, most important that when circumstances demand it, a rising fame, a more responsible position, a wider sphere of usefulness, the coveted title should be within the reach of every worthy aspirant. Honours are not like old china, valuable in proportion to their rarity.

FATAL MISTAKE.—On Friday week an inquest was held before Mr. W. H. Garrington, borough coroner, at Portsmouth, on the body of a child, four years of age, the daughter of Staff-Commander W. H. Petch, of the Royal Navy. It appeared that the child was unwell and was shown to Mr. G. B. Hill, staff-surgeon on board the Royal yacht Osborne, who advised that a dose of antimonial wine should be administered, and that if sickness did not follow a second dose should be given. Two spoonfuls of the supposed mixture were accordingly administered to the child, who then became drowsy, and Mrs. Petch again summoned Mr. Hill, who examined the contents of the bottle, and found it to contain a solution of morphia. The stomach-pump was then resorted to, but, though every remedy was applied, the child's life could not be saved. It appeared that the morphia had been placed in the bottle which had formerly contained the antimonial wine, but that the label had not been removed, and as the two liquids resembled each other, it was very possible to mistake one for the other. The jury returned a verdict to the effect that the child had been poisoned by mistake.

GUTTA PERCHA FUZE IN GLASGOW.—The discovery of a quantity of gutta percha fuze, near a Glasgow gasometer, has been explained. The article was given to a person residing in the neighbourhood, by a man who had found it in another part of the town. Thinking it to be common gutta percha tubing, he tried to mend a pair of shoes with it, when the flame speedily revealed the presence of gunpowder; the good woman of the house, to prevent mistakes, consigned the whole to the ashpit, where it was found.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR DECEMBER, 1867.

1 Companies.	2 Date and Place of Collection.	3 Total solid impurity in 100,000 parts.	4 Organic Carbon.	5 Nitrogen as Nitrates and Nitrites.	6 Ammonia.	7 Total Combined Nitrogen.	8 Previous Sewage Contamination (Estimated.)	9 Total Hardness.
THAMES.								
Chelsea ...	DEC. 2ND. Cab-rank, Horse Guards.	29·8	·202	·243	·002	·252	2130	21·7
W. Middlesex ...	DEC. 2ND. Cab-rank, Portland-row.	29·6	·174	·266	·000	·291	2340	22·8
Southwark and Vauxhall ...	DEC. 2ND Barclay's Brewery.	29·6	·217	·228	·001	·239	1970	21·7
G. Junction ...	DEC. 6TH. Cab-rank, Woodstock-street.	29·0	·396	·269	·001	·289	2380	20·8
Lambeth ...	DEC. 2ND. Cab-rank, Lambeth-road.	29·8	·216	·239	·000	·273	2070	22·8
OTHER SOURCES.								
New River ...	DEC. 2ND. Cab-rank, Tottenham-Ct.-Rd.	29·8	·104	·298	·000	·301	2660	22·8
E. London ...	DEC. 6TH. Slater's Lampblack Works, Old Ford-road.	31·0	·141	·208	·000	·212	1760	23·1
Kent ...	Company's Main, Bromley.	31·8	·112	·413	·123	·516	4820	24·6
Loch Katrine ...	FEBRUARY. Glasgow.	3·28	·256	·031	·002	·041	0	0·3
Lancaster ...	SEPTEMBER. Lancaster.	3·54	·157	·036	·001	·038	0	0·1
Manchester ...	NOVEMBER. Manchester.	6·8	·242	·001	·001	·028	0	2·7
Leicester ...	NOVEMBER. Leicester.	23·7	·506	·001	·001	·022	0	13·4

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by the water supplied to the towns of Lancaster, Manchester and Leicester, when submitted to the same analytical processes. The numbers in columns 3, 4, 5, 6, 7, 8, and 9, all relate to 100,000 parts of the waters. The table is to be read thus: 100,000 lbs. of Chelsea water collected on 2nd Dec., at the Horse Guards cab-rank contained 29·8 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·202 lb. of carbon. This solid impurity also contained ·243 lb. of nitrogen in the form of nitrates and nitrites, besides ·002 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·252 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 2130 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames or its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been entirely converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 21·7 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The waters delivered by the Southwark and Grand Junction Companies, were turbid when drawn from the mains, the remaining waters were transparent. The results of the analysis of the Kent Company's waters, collected this month, at Bromley, shew that it is of an entirely different character from that delivered by the same company at Deptford. Not only is the previous sewage contamination of the Bromley water very high, but the presence of a large amount of ammonia, shows the contamination to have occurred very shortly before the water was delivered to consumers. The use of this water for domestic purposes is very undesirable.

ROYAL COLLEGE OF CHEMISTRY,
London, Dec. 24, 1867.

Correspondence.

SIMPLE FRACTURE OF THE FEMUR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In a recent case of simple fracture of the femur through lower third of shaft, the patient being an old man, and a difficulty being found to get a suitable bandage for the perineum, I found the following plan successful. A piece of galvanised India-rubber tubing, about six-eighths of an inch in diameter, and sixteen inches long, was threaded by a common calico bandage, the ends of which were drawn through the necessary distance at each mouth of the piping. This I applied in the usual way, and it was borne well, being at once soft, waterproof, elastic and clean. Moreover, the same piece of tubing would last for many cases.—Yours, &c.,

Tetsworth. J. C.

PROFESSIONAL ETIQUETTE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Knowing the pages of your valuable journal ever to be open to defend the interests of the profession, I wish, through its columns, to ask how far professional etiquette goes, and in what relation the specialist stands with the hospital physician or surgeon.

Now, sir, living as I do in the second city in Great Britain, with its men occupying the first position as specialists in the profession of which I have the honour to be one, is it correct for the pure physician of medical celebrity, or the surgeon to one of the largest metropolitan hospitals, to undertake special operations in dental surgery (in their own private houses), which have, heretofore, fallen to the lot of those men who are specialists for that purpose.—I am, sir, yours obediently,

RHIZODONTRIPY.

The etiquette of the profession certainly fixes a limit to the prosecution of special branches by general surgeons. There is a tacit agreement on the part of specialists, that they will keep to their own business, and not practice in competition with general surgeons, and the compact ought in all reason to be observed on both sides with equal strictness.—ED. M. P. & C.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

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Lecture.

CLINICAL LECTURE ON A CASE OF EPILEPTIC HEMIPLEGIA.

By C. HANDFIELD JONES, M.B., Cantab., F.R.S.,

PHYSICIAN TO ST. MARY'S HOSPITAL.

It is generally worth our while to contemplate closely the features of any case of disease when they are strongly marked, and capable of leaving a definite impression on our minds. We should endeavour to attain to some reasonable account of their origin, to trace their mutual relations, and to compare them with other phenomena of different character occurring under like circumstances. By so doing, we can scarcely fail to gain a better knowledge of the whole pathology of the disease. I invite you to consider with me a case of manifestly epileptic character, having a sequela which is somewhat rare, and contrasts strongly with others met with in the same malady.

J. S., æt. 27, admitted August 3rd, 1867, was taken ill July 30th, when he had two fits. These (I believe) were the first he ever had. When attacked he was out of doors in the grounds of Colney-hatch Lunatic Asylum in charge of patients. The fit lasted from ten to fifteen minutes; there was an interval between the two of about one hour. Three hours later he had a third. He remembers being attacked with giddiness, as well as some circumstances which happened shortly after the attack commenced, but from that time he remained quite unconscious until he found himself at home. Since the fits he has remained in a stuporous state, and hemiplegic on the left side. Motor power in the affected limbs is entirely lost, but sensory appears perfect. No strabismus. Pupils large and sluggish. No distortion of face. Tongue put out straight. Answers questions rationally. Pulse weak, 108. Bowels have been much relaxed. Potassii bromidi gr. x. + M. camp. ℥i. *ter die.*

5th.—State same. No fits. Ammon. carb. gr. iv. + infusi valerian, ℥i. *ter die.*

6th.—The muscles of the arm contract pretty briskly with the interrupted current, those of the leg are not quite so lively. He passes all his evacuations in bed. His countenance is deficient in intellectual expression, and gives one the idea of a man who was tainted with insanity. Adde mist. pot. iod. gr. iiss. ad. ℥i. He can move his fingers a little, can flex and extend them.

9th.—Can move the hand and arm better; can open and shut the fingers, and raise his hand to his head; the leg is quite motionless to the will, but moves reflexly when the sole is tickled. Does not soil his bed so much. Not much appetite.

The urine on 10th was found very pale, sp. gr. 1014, turbid with phosphates, of which it deposits a copious sediment, consisting of prisms and amorphous granules, dissolved by nitric acid. Pt. c. mist. addendo, tr. cinch. ℥i. + tr. Valerian ℥i. ad. ℥i.

12th.—Can move the arm about pretty extensively, but the leg is quite motionless unless the sole is tickled. He says, however, that he can move the leg sometimes a little. Tongue too red. Ord. diet—porter.

14th.—Leg still motionless; arm can be moved well, but feels stiff from shoulder to elbow. Urine still passed in bed. No rigidity of arm. Pulse 75, very weak, open. Strychniæ gr. 1-20th + tr. ferri muriatis ℥ xv. + spt. otth. chlor. ℥ x. + aq. ℥i. *ter die.*

17th.—Leg still motionless, except to tickling. More control over sphincters. He feels very weak. Port 6 oz.

21st.—Can flex the leg at the knee pretty well, but not abduct it nor extend it well; cannot quite stand yet. Urine weakly, acid; does not deposit phosphates.

24th.—Can move his leg better. Takes and enjoys his food and wine; pulse very soft and toneless; heart's sounds quite normal; urine deposits phosphates again copiously, is alkaline; paper blued by it becomes red again after exposure to the air; urine effervesces with nitric acid; contains no mucus or but very little; after the phosphates are dissolved there remains only a little opacity.

28th.—Is improving; can stand and walk with a little help. Urine in same state; that passed the other day deposits no uric acid; after being boiled with nitric acid, it becomes of a dark-red colour, and deposits pigment. Camphoræ gr. i. + opii gr. 1-3rd in pil. *ter die.*

31st.—Urine still deposits phosphates copiously; pulse very weak. He can walk now quite well—only halts a little on the left leg. Amount of urine in twenty-four hours, 61 oz.; sp. gr. 1017. The urine effervesces most copiously with strong nitric acid; contains 7·8 grains urea per ℥i. according to one analysis made by Mr. Blades, the ammonia being previously separated; one which I made some hours before gave 11 grains per oz., the ammonia not being driven off,

but neutralized with nitric acid. Taking the lower estimate, the total urea for twenty-four hours—475 grains, exclusive of that which had been decomposed in the production of ammonia. Strychniæ gr. 1-16th + ferri et quinæ citratis gr. viij. + acidi citrici gr. iij. + aq. ℥i. *ter die.*

Sept. 5th.—Urine freshly passed is of sp. gr. 1018, quite clear and bright, acid. Is getting quite well.

14th.—Is doing quite well. Urine 68 oz., total urea = 314 grains; weight on 7th = 111 lbs, and total urea 392 grains.

On Sept. 19th he left the hospital quite well, and came to show himself again on 28th, in very good case.

The prominent phenomena in this case, were the epileptic attack and the paralysis. Had these events been noted in connection with each other for the first time, there might have been a doubt in our minds whether they were really causatively related, or only accidentally concurrent. But quite a sufficient number of instances have now been observed and recorded, especially by Dr. Todd, to make it quite certain that temporary paralysis is a not unfrequent result or accompaniment of the epileptic attack. In most instances, the paralysis follows the fit, but sometimes it precedes. Dr. Todd refers to two instances of the kind, and I have recorded one also in my late work. The exact cause of the paralysis is difficult to determine ; one thing seems to me tolerably certain, that it does not depend on any macroscopic structural lesion, such as extravasation of blood, softening, embolism of arteries. Were it otherwise, the paralysis would not subside and disappear so completely and rapidly as it often does, not lasting perhaps more than a day or two. Does it depend on spasm of the arteries supplying the motor-nerve centres of the paralysed limbs ? This is a mere assumption, and though it might be considered a probable one, if there were co-existing pallor of the face, retina and choroid, I doubt very much whether in the absence of signs of these states, we can consider it a possibility. During the convulsive attack, when unconsciousness is complete, the hemispheres and their basal ganglia may sometimes be deprived of blood, but when the intellectual centres have regained their power, and, therefore, of course, their blood supply, we have strong reasons, it seems to me, for doubting that anæmia is the cause of the palsy of the adjacent motor centres. Moreover, it is, I think, quite a matter of certainty that the most complete unconsciousness, *i.e.*, torpor or paralysis of the hemispheres, may continue long after all arterial spasm, which may have existed at the commencement, has perfectly ceased, and when the exterior of the head, at any rate, is in a marked state of hyperæmia. If then, their centres may remain paralysed for a varying time after their circulation is restored, why may not the motor centres also ? When we consider, further, how cholera patients, when completely pulseless, are able to walk about, and perform mental actions, we cannot regard mere anæmia (local) the result of spasm, which would scarcely effect complete obstruction, as the sole sufficient cause of a functional paralysis. Hyperæmia is pretty sure to be invoked by some as the cause, but I quite agree with Dr. Todd in rejecting this condition, as affording any adequate explanation of the occurrences. The results of long-continued, or intense hyperæmia in a part, viz.—effusion of blood or serum, might give rise to paralysis, but not a mere transitory hyperæmia ; nor would the paralysis so produced be of brief duration. Moreover, the state of our patient, and especially the kind of treatment which we found serviceable, is quite opposed to this view. For my own part, I accept the opinion expressed by Dr. Todd, as coming nearest the truth. He says, v. Clin. Lect., p. 295, " that the exciting cause of the disturbance which constitutes the epileptic paroxysm, leaves behind it a more or less exhausted state of brain. This state of exhaustion is very apt to continue, as one of weakened nutrition, in which the tissue is more or less in the condition of white softening. If the parts involved in this be the convolutions, mental power, memory, perception suffer ; if deeper parts, as the deeper parts of the white matter of the hemisphere, and the corpora striata and optic thalami, then we have hemiplegic paralysis." The only point in which I am inclined to differ somewhat from Dr. Todd, is the occurrence of anything like white softening in the affected nerve tissue. To me the morbid condition is more like that which prevails during profound sleep, and like this in the majority of cases tends to pass away until it is reproduced by fresh disorder. It is just the same condition that is produced by inhibitory irritation of various kinds, nitœa, a blast of cold, a diseased tooth ; or which ensues in chorea, influenza, and often the exanthemata. It is essentially a state of exhaustion, but not, I believe, of discoverable organic alteration.

We cannot doubt that the efficient causes of disease remaining the same, the resulting phenomena vary greatly according to the vulnerability and other qualities of the several organs on which they act. This is strikingly apparent in certain cases of the exanthemata, where one individual has but a single part affected, the others remaining unchanged by that miasm, which, in most of his fellows, occasions grave, general disorder. So also in renal degeneration, the peculiarities of the tissues in different individuals determine very much the secondary disorders which ensue ; one person having convulsions, another dropsy, another pericarditis, a fourth pleurisy. On this ground, I conclude that the paralysis is an event of the same kind as the coma or stupor, which so commonly succeeds an epileptic paroxysm, and that it occurs wherever owing to original or acquired weakness the motor centres are more vulnerable, or at least as much so as the hemispheres are. That the palsy, when it occurs, should last longer than the coma generally does, need not appear to you surprising, since we repeatedly meet with instances in which motor power is much more slowly regained than sensory, or intellectual. In our patient, however, the stupor continued for an unusually long time, his mental faculties were evidently dulled, and to this, I believe, rather than to paralysis of the sphincters, we must ascribe the circumstance that he passed for several days after his admission all his evacuations in bed. The expression of his countenance, in fact, was that of a semi-demented person. That the sphincters themselves were not paralysed is rendered further probable by the readiness with which reflex movements were induced by tickling the soles of the feet, which showed that the lower part of the spinal cord was sound.

The condition of the urine was very noteworthy, and is conclusive, I think, as to the great depression of the nervous, and other powers of the system. The urea underwent, as it appears, spontaneous decomposition, there being only a very small quantity of mucoid substance present in the urine, certainly much less than is present sometimes when no such breaking up of this constituent occurs. Without going beyond the limits of direct observation, it may be stated, I believe, as a fact, that in various morbid states, of which failure of vital power is one of the most prominent features, the excreta are found to decompose with unusual readiness. This has been ably dwelt on by Dr. Inman. That the carbonate of ammonia in the urine was not derived from that which was administered medicinally needs hardly be said, as the drug is continually given without any such result ensuing. Moreover, this state of the urine continued several days after the ammonia had been omitted. Regarding then this (apparently) spontaneous decomposition of the urea as a sure and clear indication of general prostration, I gave strychnia with iron, and port wine, and there can be no doubt, I think, that these means materially promoted the recovery. Simultaneously with the restoration of nerve-power, the urine became quite natural, and what is especially worthy of attention the total urea amount of 24 hours diminished considerably. It is not possible to state precisely the difference in figures, because, as the ammonia was not estimated, we cannot tell how much urea underwent decomposition, and so escaped analysis on the first occasion. It is certain, however, that the amount excreted during full convalescence, with better

appetite and digestion, was less than that which was passed during the period of great prostration by more than 161 grains. This is quite analogous to what is observed in low fever, when the excretion of urea and uric acid during the height of the fever may be more than double of that which occurs during convalescence. Prostration of nerve power is a prime element in fever, and so it was in our patient, and to this prostration I am disposed to refer the increased bodily waste in both cases. The urea amount during the period of convalescence was about in normal proportion to the bodily weight—*i.e.*, about 3 or 3·5 grains per 1lb. Before this it must have been considerably in excess. I am rather disposed to attribute the supervention of the disorder to the patient's occupation. It is not doubtful that attendance on epileptic persons may induce the malady in those who are predisposed. Whether this were the chief cause of the attack or not, I am sure that I have done right in counselling him strongly to seek for other employment. The various morbid manifestations which occur in connection with epilepsy are manifold, and you must be prepared to meet with this foe not unfrequently in a more or less disguised form. As sequelæ of the complete paroxysm, we may have the following different pathological states :—(1). Coma (palsy or torpor of the hemispheres). (2). Mania or violent delirium (hyperæsthesia of the hemispheres). (3). Hemiplegia (palsy of motor centres). As instances of petitmal, or of partial epilepsy, we may have—(1). Brief, sometimes momentary, unconsciousness (palsy of hemispheres). (2). Acts of sudden unaccountable violence, or obscurity, attended, or not, with complete unconsciousness. These are quite analogous to the delirium succeeding the grand mal, but are more likely to become the subject of legal enquiry on account of the comparative absence of convulsion. (3). Attacks of clonic convulsions of the limbs, trunk, or face, without unconsciousness (Trousseau). (4). Attacks of motor paralysis, attended with pain and anæsthesia, without unconsciousness (Russell). (5). Attacks commencing with severe pain, and attended by some amount of paralysis (Russell). Epileptiform neuralgia, which Trousseau regarded as allied to epilepsy by its intractability and the suddenness and brevity of its paroxysms, might be regarded as another form of the malady affecting chiefly the sensory nerve-apparatus.

The treatment of epileptic hemiplegia will not be always the same. Many cases may call for very little. Many may require tonics or analeptics. I can quite believe that in some where the patient is plethoric, and determination of blood to the head (as I have seen) persists for many hours after the attack, a moderate cupping to the neck might be desirable, unless hot pediluvia and purgatives proved sufficient. Hyperæmia of a paralysed and unconscious brain, I should fear, might be a cause of serious mischief. Here, as ever, remember that each case must be treated according to its individual requirements.

Original Communications.

PURPURA.

By W. H. BROADBENT, M.D.,
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(Read before the Harveian Society of London.)

THE object of this paper is not an exhaustive discussion of the diseased condition known as purpura, but simply to describe it as it has come under my observation, chiefly in the out-patient practice of St. Mary's Hospital, and to mention some of the considerations which have been suggested by the cases I have seen.

The name purpura is given to a state of system characterised by extravasations of blood in the tissues of the skin which give rise to brown or purple spots of various size. The spots are readily distinguished by the absence of elevation, and by the fact that they do not disappear on pressure, and are not rendered at all pale by it. In treating of purpura as a disease, I leave out of consideration, on the one hand, true scurvy, and on the other, those cases in which the purpuric extravasations are secondary to disorganisation of blood and tissues in the course of other diseases.

The pathological cause of the cutaneous extravasation is primarily some altered condition of the blood, this being shown by the fact that in the absence of special causes the manifestations are symmetrical. The precise nature of the alteration is not known, but it is not merely impoverishment, since this may be carried to an extreme degree, and may arise from the most varied circumstances without giving rise to purpura. But, secondary, to the change in the blood, there is also a change in the tissues, an undue lacerability of the capillaries, and it is this which permits of the extravasations, and not a disintegrated and dissolved state of the red-blood corpuscles. That a distinct and special deterioration of the structures is involved is shown by the fact that the seat of the extravasations is determined by mechanical conditions. The spots appear, for the most part, earliest, and are most abundant on the legs where the vascular pressure is greatest. This may be contrasted with the eruption of small-pox, or the petechiæ of typhus, which, being dependent solely on the blood-disease, are not influenced by hæmostatic pressure. Another evidence of the impaired tenacity of the capillaries is the production of large bruise-like marks by very slight injuries.

It is scarcely necessary to observe that purpura is not, in any sense, a skin disease. The extravasation may occur in the various mucous surfaces, when the name P. hæmorrhagica is given, or in the substance of organs.

The change in the blood and secondary alteration in the tissues, is not the same in all cases. We may refer, as an illustration, to scurvy, which, in virtue of the cutaneous extravasations and mucous hæmorrhages, is purpura, but in its known definite causation, and in the peculiarity of associated symptoms, is entirely distinct from the purpura of which I am speaking. In the same way, but in a minor degree, diversities in the apparent cause of the affection, in the mode of access, appearance, and progress of the eruption, and in the accompanying symptoms, indicate some difference, not in degree merely, but in kind, in the pathological condition.

The spots vary much in appearance in different cases, while they commonly adhere more or less closely to one type in the same case. In some they are circular, sharply defined, and, at first, of a deep blue or purple colour, and when they have this character, they are usually small. In others they never have so deepa tint, but are rather of a deep brown than purple colour, often larger in size, and less regular in form and outline, and they do not seem to involve so deeply the structures of the skin. In others, again, as in P. urticans, the patches are deeper in colour at the centre than near the periphery, gradually shading off into the surrounding skin, and frequently, even when first appearing, they have the dusky hue which marks a later stage of the more common variety of spots. Sometimes intermingled with the purpuric spots, there will be large vesicles full of bloody fluid, which break and leave dark coloured superficial ulcerations apt to bleed.

Sometimes a single—more or less copious—crop of the eruption appears at once, and dies away gradually without being succeeded by others ; or, as one crop is fading, or when it has disappeared, another will follow. In these cases, all the spots seen at any given time will be in the same stage. In other cases, there will be a succession of scattered spots, so that they present themselves in all stages. The duration of individual spots is not very different. The abnormal condition of the textures does prevent the blood from being absorbed, and as this process goes on, the patches undergo changes in colour, and at length disappear. The duration of the disease depends on the coming out or not of successive crops. A peculiar

method of eruption is that seen in P. urticans, as it is called. Red, congested, slightly elevated patches appear usually on the legs, or on the legs and forearms, resembling somewhat the wheals of urticaria, whence the name urticans, but as I have seen them more like the eruption of erythema nodosum. These swellings subside, leaving purpuric spots, which, however, as has been mentioned, are a little different in appearance from those usually seen, as they are also different in their mode of origin, being preceded by inflammation, and not being due simply to a rupture of capillaries.

These diversities in the character of the eruption, and in its mode of access, are commonly associated with different series of symptoms, but my observation has not been sufficiently extensive to warrant me in subdividing the disease, and classifying varieties in accordance with those differences.

One of the most interesting questions in connection with purpura is its causation. It would be instructive to institute a careful examination of all the classes of cases in which cutaneous and internal extravasations of blood of true purpuroid character occur — such as obstructive, heart-disease, in which, however, it is so exceptional that some other factor, in all probability, enters into the production—liver-disease, and especially acute atrophy of this organ ; phosphorus and arsenic poisoning in which notable tissue degenerations are found ; true scurvy, still very common in the merchant navy, and of which I have seen typical examples in London. This inquiry, however, does not come within the scope of the present paper, which deals only with that class in which the purpura is the prominent and primary feature of the diseased condition. The first question which suggests itself is as to food. It is very rarely, indeed, that the disease is traceable to the absence of any important article of diet. Sometimes, but not at all commonly, it seems to be in some measure due to general insufficiency of food. Habits of drinking have seemed to give rise to it occasionally, and I have met with it in persons under the influence of lead-poisoning. It is not uncommon to find it associated in women with catamenial irregularity ; and when a purpuric tendency exists, the manifestations usually take place at the menstrual period. Purpura has been observed to follow acute rheumatism in many instances, and is often associated with sub-acute and chronic rheumatism ; and I am inclined to consider purpura and rheumatism as closely allied conditions. Purpura is very commonly accompanied by pains which are rheumatoid in seat and character, and is frequently clearly traceable to the causes which ordinarily give rise to rheumatism, exposure to wet and cold.

The cases now to be given, will illustrate the various points advanced.

As has been said, something more than mere innutrition is implied by the presence of purpuric spots since this condition may be carried to an extreme degree, and may arise from the most diverse causes without bringing about the particular deterioration of the capillaries which permits of their ready rupture. But in out-patient hospital practice, cases are often met with in which general debilitating causes, insufficient food, over-suckling, &c., have been at work, and have evidently had a large share in the production of the disease. When this is the case, the spots come out, not in well-marked crops, but more or less freely on any exciting occasion occurring, such as a hard day's work, prolonged standing, the catamenial period.

Of this sort is the following :—

Ann W., æt. 40, wife of a stableman, and residing in Mews, had for some time been living poorly. She applied as out-patient at St. Mary's Hospital, on August 13th, 1866, complaining of weakness and pain in the head. On September 6th, the legs were swollen and painful, and presented numerous purpuric spots. This was her catamenial period. The swelling of the legs continued, and she had still much pain in them on the 13th, but the spots had faded. On the 20th, new spots had come out, but on the right leg only, where the veins were large. The treatment was iron and quinine, with dilute sulphuric acid, and a supply of good food from the St. Mary's kitchen. On the 27th, the eruption was no longer visible, and it did not return. Pain and swelling of the ankles continued for some time, but she was discharged on November 22nd better in all respects.

A similar case is that of

Margaret N., æt. 35, wife of a labourer living in Suffolk-place, an unhealthy court in Marylebone. She applied on Feb. 22, 1866, having just weaned of a child of fifteen months, and in addition to the usual consequences of over-suckling, weakness, pain in the loins and shoulders, and sense of sinking, &c., had, at every menstrual period, swelling of the legs, and an extensive purpuric eruption of the diffuse character. She improved rapidly under cod-liver oil and iron, and ceased to attend on April 24th.

Other similar cases might be given, but these constitute the least interesting class, and most commonly purpura is not associated with any such degree of general debility, and cannot be traced to the ordinary causes of this condition. It will come on suddenly when the patient is apparently in good health, and may be unattended with any marked degree of muscular weakness, in this contrasting with scurvy, which is gradual in access, and is always attended with muscular weakness and nervous depression.

Examples of this kind are the following:—

Robert B., æt. 5, the child of a police-constable, was brought to the hospital Feb. 19, 1866. He had been getting a little thin for a short time, but otherwise seemed to have nothing the matter with him, till the nates and lower extremities were suddenly covered with small dark purpuric spots. The eruption was accompanied by aching of the legs. Castor oil was given to relieve the bowels, as they were constipated, and six minims of muriated tincture of iron four times a day. No new crop came out. The spots first seen faded and disappeared, and the child was soon quite well.

Richard B., æt. 32, a mason, became an out-patient on March 18th, 1867. He had been a great drinker up to eighteen months before, but since then had been a teetotaller till shortly before the attack, when he had a month's bout of hard drinking. He was working up to the day on which he applied at the hospital. For a fortnight purpura had been gradually coming out on the legs and forearms. On the legs the patches were very large, and on his hands black bullæ appeared. The legs and hands were swollen, and his joints stiff. He continued to work at his employment while under treatment, and soon ceased to attend.

George B., æt. 39, a carpenter, applied as out-patient on May 30th, 1867. A distinct blue line existed on the margin of the gums, otherwise he seemed to be in good health. A copious purpuric eruption had appeared on the legs, attended with soreness in these limbs, especially the right. He also was quite equal to his work.

I have referred to the relation which seemed to me to exist between purpura and rheumatism. In the cases just given there was pain and swelling, chiefly in the affected parts, but very frequently the pain is not confined to the locality of the eruption, but is felt in other parts of the body, and especially in the joints. Sometimes the pains have a wandering character, will be felt chiefly in the back and limbs, and after lasting a week or ten days, will cease, leaving the patient weak and languid, and then the eruption will make its appearance, constituting thus a stage resembling the prodromatous stage of fever, or a severe form of the disturbance of the system, which sometimes precedes or accompanies the manifestations of syphilis. But the pain may be much more prolonged than this, and may in all respects so closely resemble sub-acute or chronic rheumatism, that the treatment for this affection is unhesitatingly adopted, unless the existence of the eruption is known.

Frances C., æt. 47, applied at St. Mary's Hospital, August 16, 1866. She had been in good health, had lived well, and resided in a healthy neighbourhood. Severe pain had come on in the joints, attacking successively the hands,

arms, knees, and feet. She was scarcely able to walk. The case had quite the aspect of sub-acute rheumatism, and iodide of potassium was given in doses of three grains.

On the 20th a purpuric rash had made its appearance on the leg; the pain still persisting. The iodide continued.

27th.—The pain no better; scarcely able to walk. The first spots had faded, but another crop had appeared. Iron and quinine now replaced the iodide. The patient soon ceased to attend; her prior condition at her last visit was not noted.

Jas. H., æt. 38, a carpenter, became an out-patient under me, July 30, 1866. He had lived well and had enjoyed good health. Ten years previously he had been in the habit of drinking to excess, but not within that time.

Seven weeks before, without any distinctly assignable cause, he had been taken with great pain in the ankles and knees, which lasted about a fortnight, and then small swelling began to appear on his legs and fore-arms towards evening, which were gone in the morning, leaving purpuric spots. He felt very weak. The muriated tincture of iron was prescribed, but during a short absence from town in the early part of August, iodide of potassium was substituted by my clinical assistant. On August 13, iron was again given in the form of sulphate with quinine, and dilute sulphuric acid.

August 16.—Spots continue to appear on the legs, thighs and fore-arms, and small, superficial, dark-coloured ulcers, left by bullæ which had burst, were also present.

23rd.—An opportunity afforded me of seeing the eruption in its early stage. On the legs, fore-arms, and wrists, were spots resembling perfectly those of erythema modosum; slightly elevated; firm to the touch, and of a deep-red colour. These bear the purpuric stains. He feels better, but cannot stand more than three hours' work, and at night he has a sensation as if the blood would burst out of his legs. Tinct. ferri. mur. ʒxv., and acid sulph. chl. ʒvi., in water, was now given.

From this time he improved rapidly, but on Sept. 10th, after great exertion, many spots came out on the legs, and the skin was tense and swollen. The eruption was visible when he came to the hospital on the 13th, and below the knees the entire skin had a greenish yellow tinge. He was, however, stronger.

Sept. 17.—Better and stronger; very few new spots; soles of feet swollen and painful in a morning, but better after walking.

He came to the hospital for the last time on Oct. 1st, having resumed full work. A few spots had appeared at first, not afterwards.

Jas. H., æt. 33, a sailor, became out-patient at St. Mary's Hospital, Feb. 25, 1867.

After rough weather in the Mediterranean two months before he was in the hospital at Gibraltar for five weeks, suffering from rheumatism. He had been well supplied with food, but had had to sleep in a wet berth. He left Gibraltar well, but on reaching England began to suffer from pains in the knees and ankles, which became swollen after walking. In other respects he seemed well. Iodide of potassium was prescribed in doses of six grains. The pain diminished, but on March 11th purpura appeared on the legs, coming on with small swellings like "nettle stings." It was difficult to determine whether this was not a case of scurvy. There seemed to be a slight fulness and firmness in the popliteal space, and the gums, though neither spongy nor bleeding, had a red line on the margin, and were of a deeper tint than usual. The general condition, however, was not that of scurvy, and, though a sailor, the patient had not been deprived of fresh vegetables. He was ordered fifteen minums of tinct. ferri mur. in infusion of quassia, and improved rapidly.

It remains to show that exposure to cold and wet, the common exciting cause of rheumatism, is capable of inducing purpura. This, if not admitted as evidence of relation between the two diseases, is important, as showing what a profound general alteration in the blood and tissues may be brought about in this way; how changes such as those present in acute rheumatism or purpura are produced by a prolonged chill of the surface of the body; whether the primary affection is an impression made on the nervous system, or some influence exerted on the organic operations is not easy to say.

In several of the cases related, exposure to wet and cold was the only assignable cause of the purpura, but the connexion was not sufficiently obvious to be of any great value as evidence. In the following example the causation seems clear and undoubted:—

Henry R., æt. 26, a porter, became an out-patient at St. Mary's Hospital, September 10, 1867. He was a married man, steady and sober in his habits, living well on varied diet, strong and muscular and in good health, till 14 days before he had got wet through. Since that time he had never felt well. First, all his limbs were stiff and painful, so that he could scarcely move them. In a few days the pain passed off, but he felt weak and ill. Then, on the day previous to his admission, his mouth began to bleed, and purpuric spots appeared on his arms and legs. It is worth while to note the exact time, about twelve days occupied in the production of this deterioration of the tissues. The spots were circular, well-defined, of the size of a split-pea, and deep purple in colour. There was also a very large bruise-like mark on the forearm. His gums were bleeding freely, and in the mucous membrane lining the cheeks, especially opposite the line of the teeth, were large purple patches of ecchymosis. The patient was pale and felt weak.

He was ordered T. ferri. mur. ʒxv., acid. sulph. dil. ʒviii., mist. quinæ ℥j. + , and was recommended also to take two lemons daily in the form of lemonade.

He gradually improved, and was soon able to return to work.

Thomas K., æt. 24, a bricklayer, applied at St. Mary's Hospital November 18, 1867. Three weeks previously, after being engaged in work which required him to kneel for a long time on cold damp stones, and in the course of which he felt the cold very much, he was suddenly seized with pain in the knees and ankles, which became swollen. The pain continued, and a few days before he came to the hospital purpuric discolourations appeared on the legs. When first seen the legs were thickly covered with large brown spots, in many places confluent. Less distinct spots were seen on the backs of the hands. He took iron, with acids, and rapidly improved.

Another case, one of the worst examples of purpuric hæmorrhagica I have known to recover, was traceable to cold and wet:—

The patient was a boy, aged about 14, who was under my care, at the Free Hospital. He had been in good health, and had lived well, till shortly before his admission he got wet through. He had pains in the limbs, and fell ill, then the entire body became covered with large purpuric spots, and he began to lose blood from the mouth. He was at once brought to the Hospital. Every part of his body and limbs presented large purple blotches, and, at many points, the cuticle was gone, and large superficial bleeding ulcerations existed. The mucous membrane of the mouth was everywhere black, swollen, and bleeding, and the fœtor from the blood decomposing under the influence of the fluids of the mouth was most offensive, resembling that of gangrene. The poor boy presented a pitiable spectacle. The sheets all stained by the hæmorrhage from his numerous wounds, and the pillow saturated by bloody fluid issuing from his mouth. It did not seem possible that he could survive, but, fortunately, he could swallow, and there was no loss of blood from the intestinal canal. I prescribed tinct. ferri mur. with dilute sulphuric acid and quinine every three hours; ordered him port wine, and as much lemonade as he would drink; beef-tea and milk as food. At my next visit he seemed weaker and more haggard, but the bleeding was not so great. After this there was no doubt as to the improvement, and eventually he recovered.

The treatment of purpura has been sufficiently indicated in the cases given, and though, in many instances, the disease tends to a speedy recovery, it has seemed to me that the iron and mineral acids have conduced, in no small degree, to this result.

REPORT ON OZONE.

By H. DAY, M.D.,

PHYSICIAN TO THE STAFFORD COUNTY INFIRMARY.

(Read at the General Session of the St. Andrews Medical Graduates' Association.)

SINCE the year 1840, when Schönbein commenced to place before the world his researches on "electrified air," "ozone," or, as it has since been called, allotropic oxygen, no smaller subject than this has occupied the attention of scientific men.

The subject has engaged the attention of three classes of observers—the physicists, the chemists, and the physicians. The physicists have been struck by the bearing of the question in relation to the general phenomena of the universe—by the changes, as it would seem, which mere matter may be made to undergo under the influence of force. For, and from this reason, too, their minds have been brought to the consideration of analogous phenomena, noticed in the transmutations of phosphorous under the influence of heat; and some kind of countenance has been given to what may be called the ancient-modern notion which the alchemists believed, and a Faraday did not disbelieve, that a day will come when elementary forms of matter will be reduced to a few simple types, if not to a single one.

To the chemists the subject has been of interest, in that they have found a new body to attract their attention—new compounds springing from it—new views respecting the molecular condition of elements—new speculation as to combinations, and the expression of combinations by symbols and equivalents.

To the physicians ozone has afforded a wider, I had almost said a wilder, field; they have believed they saw in it a cause of disease—a remedy for disease—a preventive of disease. It has been obtrusive—it has been perplexing—it has been a subject of vast erudition, and yet it is up to this day a subject of intense doubt. Whilst some hold it almost in wonder, others are heretic enough to dispute its existence altogether, the majority hesitating and asking for more light.

During the time I have been writing this paper all these phases have been presented to me, and it is a singular circumstance, but quite true, that two brothers, both physicians of eminence, one residing in this country, and the other at the Antipodes, and both connected by the common tie of our University, are as widely separated in opinion on the subject of ozone as they are in the geographical limits of the world.

How then shall I (who have no pretence to be a judge of matters of such profound importance) proceed to speak in this assembly. I know of but one course, that is, to proceed as I have learned, determined at the onset not to embarrass myself with any anxieties as to who is right and who is wrong.

HISTORY.

That we may be carried on smoothly from one point of our study to another, let me briefly relate the circumstances connected with what is considered to be the discovery of the nature of ozone.

The earlier electricians appear to have formed an idea that common air did not admit of electrization; for instance, Benjamin Franklin, whose researches in electricity are second to none, says, in a letter addressed to Peter Collison, F.R.S., of London, in 1749, "Air is an electric *per se*, and, when dry, will not conduct the electrical force; it will neither receive it nor give it to other bodies, otherwise, no body, surrounded by air, could be electrified positively and negatively; for," he argues, "should it be attempted positively, the air would immediately take away the surplus, or, negatively, the air would supply what was wanting."

In the main, there can be no doubt Franklin was correct. It is clear that air can never be so electrified as to become either a conductor of electric currents, or an intense conductor of electrical force; if it could, what Franklin said would be true, the air would be the prime conductor and the prime holder of all electrical force; it would neither insulate the wire of a telegraph nor permit the largest machine to charge the Leyden Jar. But the generalization of Franklin was rather too sweeping notwithstanding.

It will be remembered that he wrote the above before the time of Priestly, and that in speaking of air he included under that term what he believed to be an elementary body, and so far was he right, that even now, with our knowledge of the compound nature of air, and the capacity of one of its elements—oxygen—to be influenced by electricity, and with electrical apparatus of the most powerful kind at our command, we can only affect one part in twelve of that oxygen which forms only one-fifth of the atmospheric scene.

The discovery of oxygen by Priestly led, after a few years, to the revision of the Franklinian hypothesis, as to the absolute incapability of the air to be influenced by electricity.

In 1789 Van Marum, an electrician of Holland, practising on the "vital air" of Priestly, or, as it has since been named—oxygen—discovered that after electric sparks had been passed through this gas, a peculiar odour was developed, which he spoke of as an "electrical odour," and which represents what has subsequently been called, on the same nomenclature, but from a Greek derivation, "ozone."

Towards the beginning of the present century Cavallo seems to have made a further step, for he observed that a peculiar condition of air was produced when passing through it electric sparks, which condition he designated the "aura electrica." Cavallo further observed that this electrified air had a purifying effect on decomposing organic matter, and he therefore had it applied, as he thought with good effect, to fœtid ulcers of the human subject. One of the discoveries about this period having an indirect bearing on the subject before us, deserves mention, the more so, because it independently confirms some more recent observations made by two of the latest experimentalists. The discovery I refer to was made by Aldini, the nephew of Galvani, and Professor of Experimental Philosophy in the University of Bologna, and who became celebrated in this country by his remarkable experiments with galvanism on the bodies of executed criminals. Aldini observed that when by means of a metallic point he electrified the interior of a glass jar which he inverted and placed over a plate of metal, so as to form what he called an "*insulated plenum*," the water in the glass rose, in a little time, several lines: afterwards he repeated the experiment, using mercury instead of water, when he observed the same occurrence, but in a less marked degree. In these experiments, evidently without knowing the meaning of the facts he had observed, Aldini saw the condensation of oxygen under the influence of electricity.

Nearly forty years now elapsed before any further notable advance was made, then Schönbein, the late well-known physical philosopher, commenced his famous researches; and taking the view that the electrical modifications of air rested solely on modifications of the oxygen, proceeded at last to theorise that oxygen itself presents three distinct conditions. The first, a negative polar condition, which he termed ozone; secondly, an opposite condition, which he termed antozone; and, thirdly, a neutral state, resulting from the union of the two.

It was fortunate for Schönbein that his researches very early obtained the attention of Professor Michael Faraday, who, although he attempted but little in original research in this one direction, made the scientific public, by his brilliant lectures, most familiar with what had been done, and excited many observers to prolonged and careful study.

The presence of a peculiar body, possessing special properties, once established by Schönbein, its nature became actively canvassed, and our countryman, Williamson, started the theory that ozone was a ter-oxide of hydrogen. This theory, based on the supposition that water was always produced when ozone was removed, assumed the absolute necessity for the presence of hydrogen for the production of ozone. It remained for Andrews and Tait to dispose of this view by proving that when hydrogen was entirely removed and absolute oxygen made to receive the electric spark, the change of oxygen into ozone, to the extreme extent of one part in twelve could be demonstratively established. The same observers further proved by after experiment, that in this process of change there is condensation of the oxygen and reduction of volume. Finally, they proved that when mercury was exposed to ozonized oxygen, the ozone disappeared, the volume of oxygen gas remaining precisely the same.

The last theory as to the nature of ozone, and which brings us up to our present knowledge of this curious gas, has been advanced by Dr. Odling, and confirmed experimentally by M. Soret.

The facts bearing on this point have been most ably epitomized in a leading article in the *Medical Times and Gazette* of October the 5th, in the present year, in the following words :—" It is now conceded by nearly all chemists that each molecule of oxygen in the free state consists of two atoms—that, in fact, the true formula for free oxygen is O_2. Odling suggested that the formation of ozone might really be the condensation of another atom of oxygen into each molecule, and that the formula for ozone might therefore be O_3, and its density one-half greater than oxygen. When 100 volumes of oxygen were reduced by ozonization to 92, it might be supposed that 8 volumes of oxygen, combined with 16 volumes and produced 16 volumes of ozone. The change might be represented in this way :—

$$40_2 + 80_2 = 80_3,$$

" A molecule of ozone O_3 occupying the same volume, as a molecule of oxygen O_2. The absorption of the ozone by mercury, iodine, &c., might really be only the removal of the third atom of oxygen, which would of course leave the volume unaltered.

16 Volumes. 16 Volumes.

$$80_3 + 8Hg = 80_2 + HgO.$$

" The same view would account for the mutual reduction which ozone and peroxide of hydrogen exercise upon one another, and, in fact for all known reactions of ozone.

Ozone. Peroxide Hydrogen. Oxygen. Water.

$$O_3 + H_2O_2 = 2O_2 + H_2O$$"

This beautiful hypothesis, however, must have remained a mere hypothesis, but for the remarkable experimental verification which it has received from the hands of M. Soret. We have seen that all ordinary substances are only capable of removing one atom of oxygen from each molecule of ozone; but Soret has at length found a body, oil of turpentine, which absorbs the whole molecule, the whole three atoms of oxygen. To take our previous illustration, if the 92 volumes of ozonised oxygen were treated with oil of turpentine, a dense white cloud would appear, the ozone would disappear, but instead of the volume remaining the same it would contract to 76 volumes, the $16O_3$ having been removed bodily, instead of being merely reduced to $16O_2$.

" This experiment (the writer says) seems to place the matter beyond a doubt, and instead of the mass of hypotheses which so lately reigned, we have now a simple, beautiful, and coherent theory which affords an intelligible explanation of known facts. It is the more to be rejoiced at, since the importance of ozone in art, as well as nature, seems to be rapidly developing, and it is impossible to say how high that importance may rise."

One or two more points, and my narrative respecting the nature of ozone must be concluded.

In the first place I would remark that the hypothesis of Schönbein respecting the three distinct states of oxygen has fallen into disfavour. Secondly that the manifestation of ozone as a distinct body can only be demonstrated within certain limited degrees of temperature. At what reduced degrees of temperature ozone may become manifested is a question as yet unsolved, but, that it disappears at an elevated temperature admits of direct proof.

In common language, then, ozone is destroyed by heat, but, it is possibly more correct to say, that it loses its character, or certain of its special characters. Why this should be so is altogether unexplained, except on the supposition of a transmutation of force.

MODE OF PRODUCTION.

Several means exist for the production of ozone besides those natural means, whatever they may be, which bring it into the air without our calling for it.

Amongst the several artificial modes, the first to be mentioned should be the original one of passing the sparks of an ordinary frictional electric machine through the air, or, through oxygen : an improvement on this method has been introduced by the use of Ruhmkorff's induction coil, which we have here before us. When sparks are passed between the electrodes of this machine the air is ozonised, but in order to collect the air thus ozonised it is necessary to add to the machine what is called an " ozone generator." Siemen was the first to use the " generator," his instrument consists of two cylinders of glass, covered, or rather partially covered, with tin foil, one cylinder being enclosed within the other, there being a space of about half an inch between them. A wire from one of the electrodes of the coil passes to the tin foil of the inner cylinder, and the wire from the other electrode passes to the foil of the outer cylinder. When the coil is in action electric sparks are freely discharged between the two cylinders, and when a current of air is driven, by a pair of bellows, through the space in which the discharge takes place, the air is freely ozonised. An improvement on Siemen's apparatus has been constructed by Mr. Apps, the Philosophical Instrument-maker in the Strand. A sectional drawing of it is here, and the instrument itself upon the table. If, now, we set the coil in action, drive air, with the bellows, through the ozone generator, collecting the ozonised air in bottles placed in the pneumatic trough, we can rapidly fill several bottles with air saturated with ozone.

The odour of ozone may very readily be detected for sometime in these bottles. Workers in ozone will forgive me for this simple experimental illustration, but, as this is the easiest way for producing ozone, and it is my wish to familiarize every one with the process, it could not very well be left out. For all experimental researches this is by far the best and readiest mode of production.

Another method of production consists in passing air over phosphorous partly immersed in water. A simple ozone maker of this kind was invented by the late Dr. Barker, of Bedford, and another, I believe, by our colleague, Dr. Moffat, of Hawarden, whose researches on the relations of ozone to disease are so widely known.

Another mode of production, not very applicable, but forming a pretty experiment, consists in diffusing the vapour of ether through a bell-shaped jar, and then inserting in the vapour a heated glass rod.

The last suggested method is one by M. Morin. It consists in dispersing a current of water in the pulverized form, in other words, in the form of spray.

These are some of the principal artificial means of obtaining ozone ; of the manner in which it is produced in nature, various theories have been suggested. Dovè, so well-known for his theories on the laws of storms, thinks that ozone is generated in the higher currents in the atmosphere ; in fact, during the condensation in their polar course of the heated equatorial currents. Moffat believes he has traced the ozonic atmospheric periods to particular winds, and also to certain phosphorescent states. Lowe holds that the apparent varying intensity of ozone may possibly be attributed to circumstances operating for

or against its detection ; thus, an increase of temperature, from increased chemical action, would show an increase, a greater velocity of air, an increase, of moisture up to saturation, after which a minimum will result. At his (*i.e.*, Lowe's) observatory at High-field House, near Nottingham, most ozone occurs during the prevalence of a south wind, and least with a north-east wind, the maximum being attained when the barometer is at its lowest readings, and the minimum when at its highest; this, he thinks, may be simply owing to the increased velocity of a south wind over a north-east wind, its increased temperature and its moisture. Others have argued that ozone is the result of electrical discharges in the air, and several have assigned to vegetation the generation of this gas, amongst these last, I may name Dr. Daubeney, of Oxford. Dr. Daubeney, judging from the depth of colouration produced upon Schönbein's papers, by exposure to the open air, as observed during eight months, inferred that the quantity of ozone at Torquay was much greater, on the average, during the prevalence of winds from the sea. He also endeavoured to ascertain whether this ozone was generated by vegetation, and, although he found that light alone coloured the paper, he was led to infer that, after deducting this, a certain residual effect was due to the green parts of plants in generating ozone during the day.

Presuming that the opinion of M. Morin is correct, and that ozone can be produced by the spray of water, the prevalence of ozone during sea-breezes might possibly be traced to the action of sea-spray.

In order to ascertain whether there was any plausibility in this last named theory, I tested the influence of spray with fresh and sea-water, using Richardson's spray-tube for the purpose of diffusion, and directing the spray on plates of ozone test-paper. I first used *distilled water*, and kept up, vigorously, a continued spray upon the paper for five minutes, but without producing any change of colour that indicated the presence of ozone. I next used *rain water*, the specific gravity of which did not appear to differ materially from that of distilled water. The spray was continued for the same length of time as in the former experiment, and with a similar result. I now used *river-water*, obtained from the river Penk. The specific gravity of this was 1·006. The effect on the paper corresponded with that produced in the two former instances. I then tried *sea-water*, having a specific gravity of 1·268. The spray was in this, as in each instance, continual for five minutes, and at the expiration of that time, I fancied there was an appreciable difference in the colour of the paper, but the alteration,—if alteration it might be called—was so faint, that I thought it desirable to repeat the experiment, and upon doing so, only obtained the same effect as that displayed with the three previous waters. I next dissolved sufficient Tidman's sea-salt in ordinary pump-water until it attained the same specific gravity as the sea-water. It was used in precisely the same manner as the other waters, and with no other effect than they produced. I, of course, used fresh test paper for each experiment. As far as these experiments go, and taking them for just so much as they are worth, the result given was altogether a negative one ; it must, however, be borne in mind that experiments of a somewhat similar kind, on a larger scale and better devised, might possibly afford evidence confirmatory of M. Morin's views.

As regards the general question of the natural production of ozone many difficulties stand in the way of its solution : so many bodies present in the air, produce such similar effects ; light, as Dr. Daubeney observed, is a source of interference, and the circumstance under which the ozone seems to appear are so disconnected and variable, that I regret to be unable to report any solid progress in this direction. When we are dealing with artificially produced ozone, we are treating a tangible body, and we can remove nearly all obstacles to investigation ; but in dealing with air, the position is entirely different, and uncertainty, instead of certainty, meets us in every foot of our research.

(To be continued.)

TREATMENT OF BURNS.

By HENRY MAC CORMAC, M.D., L.R.C.S.Edin.

When the cutis is laid bare in consequence of wounds, abrasions, blisters, burns, or scalds, one of the elements of the accruing pain arises from the caustic action, if we may term it so, of the atmospheric oxygen. Hence, a pressing indication, in respect of treatment, is to exclude the air. The greater or less vogue of certain popular remedies, as carron oil, flour, raw cotton, and others, is to be ascribed to the exclusion of the outer atmosphere. Freshly rendered lard is deserving of a prominent place in this list. I found this substance, to wit—recent hogslard rendered without salt, very useful sometime since in the case of a poor child of seven years of age, in a miserable state, owing to a compound burn and scald.

Dr. Purefoy has, recently, in the columns of the Medical Press and Circular, advocated the employment of the bath, in the treatment of extensive burns. When we reflect how useful the prolonged employment of the bath has proved in various cutaneous affections, the inference that it would prove useful in burns, seems well borne out. Dr. Purefoy speaks of the relief which *cold* water affords, when a burnt surface is immersed in it. Here, the lowering of the temperature and the shielding of the part from the atmospheric oxygen, prove severally useful. It would not do, however, to immerse the whole body, at least for any considerable period, in cold water. The temperature of a bath which was to be kept up for whole days, or perhaps weeks, should not be less than 100° Fah., or the natural temperature of the living human frame. And the water, further, would need continual renewal day and night. The water would prove the very softest cushion and dressing imaginable, and, as it would lose by weight as much as the weight of the water which it displaced, the body immersed could be readily moved without the torture which burnt persons now experience when displaced for any purpose.

OBSERVATIONS ON BRADEIKINESIS, OR RETARDED POWER OF MOTION AND THE USE OF THE ESTHOCLINE.

By EVORY KENNEDY, M.D.

The surgeon occasionally has presented to him a case of curvature of the spine, confirmed and incurable, which depends upon causes quite within the range of our art to remedy, if the pathology of the disease be understood, and the proper treatment adopted at a sufficiently early period. We may, in the first instance, trace most of the cases of spinal curvature to disease of the bony structure or want of due balance in the action or power of the muscles which retain the column in the perpendicular posture. With both of these causes we are all but too familiar.

There is, however, another cause, that to which I now presume to draw your attention, and, as the spinal curvature is only one of the results of the diseased state, and generally only observed when the case is advanced, it will be necessary for practical purposes to deal with it as *sui generis*, to investigate the pathognomic characters of the original diseased state, and, when satisfied of its individuality by a just recognition of its special symptoms, to attach to it a name by which it may in future be characterised, and describe a treatment applicable to it.

Most practitioners have been consulted by parents whose children arrive at the usual period for moving about, without being able to do so. When a child don't, as it is naively termed, "put his feet under him," about the 12th or 15th month, the mother gets uneasy, and the doctor is consulted. His answer is a simple, and, in general, a wise one—"Patience." The child may be intelligent, well-formed, able to crawl about freely on the floor, but don't proceed beyond this stage.

When he is placed on his feet he totters, and his attempts at progression are futile, his limbs move under him only by a great effort, and yield to his weight as if made of jelly, and, with every inclination to change his position, after a few attempts, he gives it up in despair, and is fain to measure his length on the floor again, where alone he is in his element. This is the most ordinary form. But we have it in both a lesser and greater degree. As the best means of becoming familiar with the disease, better relate a case of the latter or aggravated form.

A peculiarly intelligent and precocious child, of about two years and nine months old, was brought to me some time since, carried in its nurse's arms. Its head bent forward, its shoulders and upper part of the trunk yielding in the same direction, converting the spine into an arch, with the keystone about the 4th dorsal vertebræ. It could not retain the perpendicular when replaced. It possessed the power of moving the arms, but languidly, and could crawl on the floor by drawing forward the trunk with the arms, and a curious lateral crab-like effort of the muscles of the trunk; but the power of the muscles in the lower limbs was so slight that it might be almost pronounced paralysed. Yet, the limbs were well rounded, the temperature natural, and the colour not bad—rather bloodless, but all the tissues of the limbs and body were soft, pliable, and flaccid. Its nutrition was not absolutely bad. Its power of speech was the most pronounced muscular power it possessed, and its intellect, as already mentioned, was precocious. The child, placed on the stomach, regained in a great measure a straight position, except at the 3rd and 4th dorsal vertebræ, where there was a fixed projection, the bodies of the vertebræ having been absorbed from the incessant habit of sitting erect in the nurse's arms, and on the bed, the only attitude it could be induced to retain, and which it perversely insisted upon despite every effort made to the contrary. On inquiry, I satisfied myself that this child had never had a fit; had continued from its birth to enjoy reasonably good health, except slight irritation from teething, from which it was suffering when brought to me, and that its power of motion had never been *greater*, but on the contrary there had been a very slight but perceptible *increase* of power with its increasing age. The parents attached evidently little importance to the spinal curvature. In fact it had not attracted their notice until I drew their attention to it, so gradual had been its progress, the result of the attitude so constantly maintained.

In order to arrive at a conclusion as to *what this case was*, the simpler plan will be to satisfy ourselves *what it was not*. It was not infant paralysis, because it did not display the history nor exhibit the symptoms of this disease. The want of power existed from the birth, and although so general, was more marked in the lower limbs, but it was not complete, as even these could be moved slightly under volition. There was no wasting of the limbs affected, as we so invariably see to be the case in those mysterious forms of what we may term the partial paralysis of children, which leads to so many cases of deformities in the limbs and spine in adult life—the temperature of the affected limbs.

The want of power had not been preceded, as had occurred in most of the cases that I formerly described, of paralysis produced by pressure or other circumstances connected with their birth, nor had apoplectic or cataleptic symptoms preceded it.

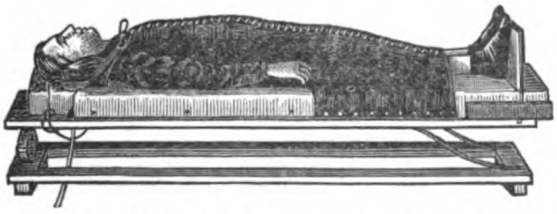
It had not followed, as we see in the paralysis of childhood, fever, gastric irritation, teething, or cerebro-spinal disease, or sympathies. In fact it was due to none of those causes to which paralysis is ascribable, and did not exhibit *its* history or symptoms; leaving us no alternative but that of pronouncing it a disease, *sui generis*, the essential or pathognomic characteristic of which is not loss of power in the voluntary muscles, but an original imperfection in that power, depending upon tardy or delayed development. We shall therefore denominate the disease *bradeikinesis*, or delayed power of motion, as best conveying in one word the idea necessary to its diagnosis, prognosis, and treatment.

Its pathology, I am happy to state, I have had no power of elucidating by dissection, as I have never seen a fatal case of it, nor, indeed, should I expect any structural alteration or lesion that would throw light upon it. Cerebration in the case above recorded was perfect, and no evidence of spinal lesion presented itself, although, from the defective power being more generally found in the limbs, we would naturally anticipate that should future investigation detect any lesion or structural alteration in this disease, it would show itself in the medulla oblongata. Although the cerebral development and mental powers were so perfect in the above case, it is not always so, as I have met some cases of bradeikinesis in which the brain was so small as to give the idea of idiotcy, and in which cerebration was most imperfect. In these cases it is fair to infer that whatever perceptible or imperceptible variation from ordinary structure or function exists in the medulla, the same variation must exist also in the brain, and what is confirmatory of this view is, that in these cases even of very small brains, the cerebration, like the motive power, is not absent or irrevocable, but merely retarded or slowly developed, and, did we want to distinguish that in which imperfect cerebration is the prominent characteristic, we might designate it in contradistinction, as "bradeinosis," or tardy mental development. The articulation is, in these latter cases, as we might expect, more frequently engaged, and for years they are scarcely intelligible, but gradually both cerebration and articulation develop, and I could, at this moment, point out more than one case of an able-bodied, reasonably educated gentleman, in the full possession of his faculties, heir to an estate, exercising all his duties, and talking, walking, and thinking as accurately as needs be, whom I have treated in his infancy and childhood, and who, at five years of age and later, either appeared almost an idiot, or staggered about or crawled with difficulty, or who could not give utterance to an intelligible sentence.

The treatment of these cases which (I should have mentioned earlier) are not unfrequently the product of intermarriages between cousins, is that usually applicable in cases of original constitutional delicacy, and may be best described as *tonic*. Nutritive food, animal broths, cream, farina; healthy, elevated, and dry residence; frequent changes of air, much better than a fixed locality, even though this be at the sea-side; carriage exercise and constant change of bed-room, with change of position of the bed with reference to the light, and objects that attract attention. The medical treatment—attention to the functions of digestion by regulating the food, so as to avoid repeated aperients. The administration of the most suitable tonics, either steel, bark, the bromides, cod-liver oil, &c., alternating them according to circumstances, and not continuing one too long. That which I have found most useful and capable of being longest persisted in, and returned to as an habitual medicine, is the phosphate of iron. The regular use of the bath, sea-water, if possible, and a permanent, never-ceasing habit of making the child exercise all the limbs, but particularly those most engaged. This is a matter of much importance, and can never be too much insisted upon. The simplest and most agreeable way of doing this, as far as the child is concerned, is to place it on a blanket on the floor, and encourage, by all manner of decoys, to crawl about on all-fours. The last and most important point in the treatment, however, is to prevent distortions of the body and limbs, occurring from mismanagement in the child's habitual posture. It will have been gleaned from what has preceded, that the curvature of the spine occurring in these cases is the effect—not the cause—of the disease. Every child at all able to accomplish taking the erect or sitting posture, does so when not asleep, and even children unable to assume it themselves, evince, at a very early age, the determination to be placed in that

position. This they do in a very simple and intelligible manner, by bellowing until their nurses place them erect. When the child is placed erect, the weight of the trunk and head being too great for the feebly acting muscles of the spine brings the spine into a curve. This posture is sustained either by the nurse carrying it about in arms, or leaving it propped up on the floor, generally whilst the child is awake—eventually the bodies of the vertebræ absorb to accommodate themselves to this posture, and an antero-posterior curvature is permanently established. The child, from habit, hastening the absorption by continuing to assume the curved posture even in the recumbent position when asleep, as well in erect posture when awake. All our rhetoric is thrown away upon the nurse in insisting upon the recumbent posture. She has every wish to carry out our directions. She places it in this posture as we direct, the child cries and struggles, she tries to soothe it, it cries more—she threatens, it cries more, and at length she yields, and either places the child erect, or allows it to assume the vicious posture. The child ultimately baffles nurse and surgeon, and succeeds in confirming a spinal curvature.

Repeated vexations, and most unsatisfactory cases of this kind, brought my attention to the devising some method of accomplishing the great desideratum of retaining the child in a proper attitude, independent of the nurse's solicitude, and its own volition ; and having succeeded in accomplishing this in a very simple and effectual manner, I should fail in my duty to humanity did I not place it at the disposal of the profession, for the treatment not only of the class of cases I have described, but of the many others in surgical practice to which it may be applicable. I here exhibit the apparatus, which you will per-



ceive consists of a lightly constructed and upholstered recline, with a hole cut for the head to fit into, and a footboard with a moveable rack to adapt to the heels. The essential part of the apparatus for our purpose, however, is the garment or cloth covering nailed at each side along the incline, with free sides perforated, and carrying eyelets, or with hooks like those used for rapidly lacing boots. These garments have arm-holes, through which the arms pass, so as to allow them free motion. The loose edges of the garments are, you will perceive, cut to take the shape of the human figure, and when placed in the incline, and these cloths laced together, the occupant is not merely thoroughly restrained in all his movements, save those of his arms, but he is sustained by an equable pressure at all points—that a stretch of our imagination might liken to atmospheric, but that it may suffice us to compare with the experimental frog imbedded in plaister.

Having quite satisfied myself that mechanically this was exactly what I required, I confess I looked forward with no trifling anxiety to the reception it would meet with from the first young prisoner with whom I tried it, a self-willed boy, of three years of age, that no persuasion, threats, or promises, could induce to remain for one moment in the recumbent posture. His muscular power was markedly improving under treatment, but the bodies of the vertebra were steadily absorbing, and curvature was established to a considerable extent. My satisfaction is not to be expressed when I found he not only submitted to be incarcerated, but absolutely enjoyed it.

In fact, a new life opened upon him, for his posture could now be changed in a variety of ways; he could be placed for a short time erect, for a longer time demi-erect, at any degree of inclination, and it was no trifling gratification to find this charming boy propped up and looking about him, apparently standing on a level with his little companions, and taking quite a position in his social circle.

Lest some of my hearers should imagine that the placing of children for any length of time in the apparatus described, would prove unsupportable, or even very irksome, I may bring to their recollection the adaptation of identically the same principle, and very nearly the same apparatus on a large scale in the nursing of infants in different nations of Europe, particularly in Switzerland and Italy, as well as amongst the North American savages, as so graphically described by Lord Milton and Dr. Chudle.

I shall not delay now to point out the many surgical cases to which this, or modifications of this, very simple apparatus may be applicable. Springs placed, as you perceive here, on a separate stand or frame, or it might be placed on a carriage, so that a child or adult with spinal or joint disease might take exercise in it. Handles attached make it a valuable and simple ambulance for the battle field, without the risk of displacement, as well as in diseases of the knee, hip, or other joints, or in cases of fracture, where change of air or change of posture is desired. It not merely prevents motion in the diseased part, but by the general support and pressure given over the whole body, it prevents those convulsive and involuntary actions of the sympathizing muscles, like bandaging in cramps, and retains the body and limbs at rest when the patient is carried about. If the back were solid, crutches and restraining springs could easily be adapted where a firm support was required to keep any particular part of a limb fixed. But these applications of it are so obvious, that glancing at them is sufficient; I shall, therefore, conclude this paper by giving this simple apparatus a name, the *esthocline* or garment-bed.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

KNEE ANKYLOSED AND DEFORMED : CURE BY GRADUAL PRESSURE.

Under the care of Mr. SIMON.

MARY J., æt. 13, a healthy-looking girl, was admitted May 23rd, 1866, into Queen's ward, with the following history:—Three years ago, she was laid up with "scarlatina," which was followed by "abscess" in the knee. The latter kept her confined to her bed for a long time, and resulted in a stiff joint with considerable deformity. No sinuses formed at any time, and she did not suffer any actual pain in the knee, but it was always a source of annoyance and discomfort, and she was constantly falling down and knocking it.

On admission, the knee was quite firmly ankylosed by bony union, and the leg bent forward on the thigh at an angle of rather more than 20° from a straight line, so that the heel rested on the ground, and the toes were thrown up. It was also bent outwards about the same angle, and the tibia was thrown rather behind the femur. The patella however was not fixed. She came into hospital with the intention of having the leg amputated on account of its inconvenience, but Mr. Simon determined to try first the effect of gradual pressure by means of splints. The ordinary "long outside" was adapted, and in course of time, a Macintyré used with it, and then a special apparatus was obtained. These, however, did not seem to answer the purpose quite to Mr. Simon's satisfaction, and he ultimately made use of a child's long outside behind the limb and a jointed iron long outside on the outer side. This latter worked at the joint by means of an archimedean screw, and counteracted the lateral deviation of the leg. The former gradually rectified the flexion forward. Pads were placed behind the knee, and a bandage applied firmly over the whole.

The progress was extremely slow at first, but after the end of six or eight months, a slight improvement was visible. Three months after this, the deformity was manifestly reduced, and on April 18th, both lateral and antero-posterior deformities were very markedly improved, the latter particularly. When she was discharged from the hospital, June 14, 1867, thirteen months after admission, the limb was really straighter than the opposite one, which was always somewhat knock-kneed.

Remarks.—This case shows, in the first place, the result of negligence and inattention during convalescence from an acute disease of the knee-joint. It would appear that after the scarlatina three years previously, some acute form of disease attacked the knee-joint, and resulted in firm long ankylosis. This disease had evidently been synovial in its origin, and had not involved the bones in caries or in necrosis. But union had been allowed to take place in an unfortunate position of the limb, either from the friends' or the doctor's oversight, and the result was, that the leg was almost useless, and a source of great annoyance.

As regards the treatment, it is seen, that by very simple means, tried fairly, and with patience, a deformity of two or three years' standing, and apparently irremediable, was eventually cured. The means adopted were such as are available by any practitioner.

Another point of interest, is the manner in which improvement rapidly took place when once it commenced. As is seen, very little progress was visible for the first six months or more ; but during the last three months of her stay in hospital, the improvement was very rapid. An impetus being once given, progress was without difficulty increased, in accordance with laws essentially mechanical.

The age of the girl was in her favour, although this is a point of probably less importance than the age of the ankylosis, *i.e.*, the length of time which has ensued since the commencement of bony union.

The fact of the patella not being fixed, is evidence that the whole of the joint had not participated in the disease, but there appeared very little doubt, on examination, at the time of admission, that perfect bony ankylosis had taken place between the opposed surfaces of tibia and femur.

ST. GEORGE'S HOSPITAL.

CASES OF PYÆMIA ADMITTED IN 1866.

1. Joseph M., a fireman, æt. 28, admitted under the care of Mr. Henry Lee, on the 10th January. His thumb and two first fingers had been crushed by an engine-wheel, which rendered primary amputation necessary. On the 25th the first rigor appeared, and was followed by profuse sweating and dyspnœa. Though stimulants were given, the patient died two days afterwards. No post-mortem allowed.

2. Thomas J., 9 years of age, was received on the 15th January, with a lacerated wound of the leg and an injury to the knee. He was attended by Mr. Tatum. Phagedæna attacked the wound on the 16th day. When this ceased he was in a very low state. Opium, ammonia, bark, and brandy were severally administered. The first rigor showed itself on the 7th March, followed by exhaustion, and the patient rapidly sank. *Post-mortem.*—The knee-joint was laid open, when the cartilages were found ulcerated, and the femoral vein plugged. Secondary deposits also were found in both lungs.

3. Henry W., conductor, æt. 32, admitted January 25th, and placed under the care of Mr. Pollock, with stricture and retention of urine. On 3rd February a friction sound was heard on the left side of the chest. Next day the first rigor appeared, followed by profuse sweating and cough. Pil. col. c. opio, effervescing saline, and stimulants were given, but death occurred on the 10th. The post-mortem showed pus around the urethra and neck of the bladder, and secondary deposits in the lungs and kidneys.

4. George O., 51 years of age, came into the hospital on the 12th February, under charge of Mr. Tatum, with gangrene of a finger after injury. Amputation was performed, and in twelve days afterwards the first rigor came on, followed by profuse sweating. Bark, brandy, and ammonia were administered, but the patient died on the 4th March. No post-mortem.

5. Sarah H., æt. 57, married. When admitted on the 14th February she had abscess of the elbow-joint of five months' standing. Mr. Holmes took charge of the case. She had the first rigor on the 24th March, followed by profuse sweating. The skin became jaundiced, and diarrhœa supervened. Brandy, ammonia, and opium were administered, but death took place on the 30th. The post-mortem showed the bones of the elbow-joint carious, and a secondary abscess in the left lung.

6. Susan D., married, 48 years of age, was admitted under the care of Mr. Pollock, February 21st, with ruptured perinæum, causing prolapsus. The plastic operation was performed. On the 27th the first rigor came on, followed by sweating and prostration. Opium, brandy, ammonia, and effervescing salines were administered, but she died, notwithstanding, on the 3rd March. *Post-mortem.*—The lungs, liver, and spleen contained secondary deposits.

7. William F., æt. 28, had fallen from a scaffold, and was brought to the hospital, March 13th, with depressed fracture of the skull, without symptoms. He was placed under the care of Mr. Tatum. The first rigor came on the 4th of April, followed by profuse sweating. Stimulants were administered. He died, however, six days afterwards. On post-mortem examination, the inner table of the skull was found to be uninjured. There was pus in diplöe, and between the bone and dura mater. No other parts were examined.

8. Henry B., a carman, aged 40, was admitted June 5th, and placed in charge of Mr. Holmes. He had suffered amputation of the leg three years previously for a primary injury. On the 24th he had the first rigor, followed by sweating and secondary hæmorrhage. The rigors recurred, and he had epistaxis. Stimulants were administered, but he died on the 30th. There was no post-mortem.

9. William W., æt. 18, a bricklayer, was admitted on the 9th of June, under care of Mr. Holmes. A gun had exploded while he was drawing it through a hedge, and left a large lacerated wound of the thigh. He lay till the 26th, when the first rigor came on, followed by sweats, convulsions, and delirium. Brandy, wine, chlorate of potash, and bark were administered, but he sank and died on the second day after the first rigor.

10. William F., shoemaker, æt. 42, came into the hospital on the 16th of June. He had cut his finger with a knife, and thecal abscesses had supervened. He was placed under the care of Mr. Pollock. During the treatment, stimulants, bark, and ammonia were given. The first rigor ensued July 1, which was followed by profuse sweating, repeated shiverings, and jaundiced conjunctivæ with purulent expectoration. He died on the 10th of July. No post-mortem.

11. Mary L., æt. 30, married. Admitted on the 31st of Oct., and transferred to Mr. Pollock's care, Nov. 14. She has had eight children. Her last confinement was 22nd of June, and was followed by rigors and abscesses. Rigors occurred also six weeks before her admission. When transferred she had bed sores, and a purulent discharge from vagina, with abscess in the thigh. The abscess was opened, and brandy and beef-tea prescribed, but she died on the 20th of Dec. No post-mortem.

12. Uria C., 57 years of age, was admitted Sept. 7, and taken in charge by Mr. Pollock. His hand had been crushed three days previously by the pole of an omnibus. An abscess followed. On the 11th of Sept. he complained of pain in the ankles, and the left shoulder, where there was a swelling. The abscess was opened, and a puncture made in the shoulder. Brandy and ammonia were prescribed, but he died on the 14th. By a post-mortem, it was found that the lower part of the right lung was rotten

and congested, and the spleen pulpy. The left shoulder and knee-joints contained pus.

13. Eliza A. C. She was admitted under the care of Mr. Henry Lee, Sept. 12. She was a married woman, 53 years of age, with an abscess of the knee-joint of uncertain date. Amputation of the thigh was performed Oct. 11. On the 12th the first rigor came on followed by profuse sweating, and repeated shivering fits. Egg and brandy, wine, bark, were prescribed. She died twelve days after the operation. A post-mortem examination was made. There were secondary deposits in the left lung and right pleura. The stump was sloughing. There was a clot in the femoral artery almost destroyed by suppuration ; also osteo-myelitis of the femur. The inferior vena cava contained a broken-down blood clot.

14. Charles A., a surveyor, æt. 37, came into the house September 14th, and was transferred to the care of Mr. Henry Lee next day. He had an abscess of the elbow-joint of long standing. Oct. 3rd, the first rigor appeared, followed by sweating and exhaustion. Brandy and bark were given. He died Oct. 4th. Post-mortem showed both lungs congested posteriorly ; spots of intense congestion in the liver; abscesses in the kidneys; an immense abscess in the right thigh, with clots in the femoral and illiac veins.

15. William B., æt. 38, a fitter, received under the care of Mr. Pollock Oct. 8th, with a compound fracture of the leg. Secondary hæmorrhage occurred. Amputation of the leg was performed. The first rigor appeared Nov. 1st, followed by profuse sweating and vomiting. Maximum temperature 103·2; respiration per minute 28; pulse 136. Brandy, ammonia, and quinine were given. The patient died Nov. 18th. *Post-mortem.*—The stump was sloughing. There was pus in the femoral and profunda veins. The tongue was swollen, and œdematous on the left side, and there was an abscess in the left lung.

16. James D., a navvy, æt. 17, was admitted Oct. 11th. Mr. Henry Lee had charge of the case. There was compound fracture of the leg, with unhealthy suppuration. The first rigor came on Nov. 1st, which was followed by profuse sweating and more rigors. The maximum temperature was 104; the respiration 58; and the pulse 164. Brandy and ammonia were prescribed. He died Nov. 4th. No post-mortem.

17. William L., a gardener, æt. 67, admitted under the care of Mr. Henry Lee Nov. 12th. He had been thrown in the street, and there was a scalp wound exposing the bone. The first rigor occurred on the 25th, and was followed by sweating and exhaustion. An attack of diffuse inflammation of the scalp preceded the pyæmia. Stimulants were administered, but he sank and died on the 1st of December. *Post-mortem.*—The wound was sloughy. The bone near the wound was infiltrated with pus. There was pus also between the bone and dura mater, and in the cavity of the arachnoid, with deposits in both lungs.

18.—Philip P., a groom, æt. 19, was admitted November 14th with a swelling on the right of the sternum, which had existed for some months. He was placed under the care of Mr. Tatum. The abscess was opened. On Nov. 21st, the first rigor set in, and was followed by repeated attacks, and sweating with dyspnœa. The maximum temperature was 103·2; the respiration 28, and the pulse 112. Bark, wine, and brandy were given. He lingered, and died Dec. 23rd. *Post-mortem.*—The first ribs at their junction with the sternum were carious, as were also the extremities of the clavicles, and upper part of the sternum. There was lymph over the left pleura, and an abscess in the right lung. The bodies of the first and second lumbar vertebræ were carious; and there was a large psoas abscess.

19.—William J., a cow-boy, 16 years of age, was admitted Nov. 25th under Mr. Holmes, with periostitis from a blow received six weeks previously. Dec. 3rd, the right shoulder had become painful and swollen, but he had no rigor. Effervescing salines, brandy, and morphia, were administered, but he died on the 6th. *Post-mortem.*—The right tibia was denuded of periosteum. Patches of intense congestion were found in both lungs, and abscesses in the left kidney. There was pus in the right knee, the left shoulder, and the elbow-joints.

20.—Thomas S., æt. 25, an engineer, was received Nov. 27th; Mr. Holmes attended him. He had been an out-patient with a crushed finger, which was amputated. He had rigors on both days before his admission, and several subsequently with sweating, cough, and purulent expectoration. The skin became jaundiced; he had bark, brandy, and ammonia ; he sank speedily, and died December 1st. *Post-mortem.*—The body was jaundiced, and covered with purpuric spots. Purulent fluid was found in the left pleura and pyæmic deposits in both lungs. The spleen was diffluent. The veins of the arm contained black fluid blood.

21.—William B., 14 years of age, an errand-boy, came into the hospital November 28th, and was attended by Mr. Pollock. For two years and a half he had lupus non excedens. Severe pain came on, December 27th, with swelling of the right knee, and was followed by swelling of the left knee and ankles. On January 11th there was great anxiety, and precordial pain with friction sound. He was supplied with stimulants, but died January 12th, 1867. *Post-mortem.*—There were secondary deposits in the right lung. Fluid was found in the pericardium, and the surface of the heart was covered with a layer of recent lymph. There was a secondary abscess in the spleen, and a large abscess in the recto-vesical fascia.

22.—Baldwin P., 14 years old, errand-boy, admitted and placed under the care of Mr. Henry Lee, Dec. 15th. He had an abscess of the thigh of nearly four months' standing. December 30th, cold night-sweats came on with hiccough and exhaustion. Stimulants were administered, but he died January 1st, 1867. *Post-mortem.*—Pyæmic deposits were found in the lungs, and amyloid deposit in the liver and kidneys. There was caries of the spine, and pus in the psoas muscle.

MERCER'S HOSPITAL.

PULSATING AORTA—EPIGASTRIC NEURALGIA WITH SPANÆMIA.

Under the care of Dr. MOORE.

(Reported by Mr. BACKHOUSE.)

MARY F., a pale, chlorotic, unmarried woman, aged 34, was admitted into the Hospital on the 14th October last. She complained of pain under the left breast, in the epigastric region, and along the course of the spine. She stated that occasionally she was tormented by a "throbbing" in her stomach, more especially before the menstrual periods. The menses were deficient in every respect. She had headache, flutterings, sighings, and was usually constipated ; she slept badly, had loss of appetite, and was much depressed. On a careful examination, there was no perceptible tumour in the epigastric region, but there was increased pulsation in the aorta, unattended with "bruit." The pain complained of in this region was periodic, occurring daily about the same hour. On inquiry, it transpired that she had reduced herself by extreme abstinence, (from religious motives), her principal diet having been strong tea.

She was ordered two grain doses of citrate of iron and quinine, with eight drops of tincture of digitalis in an ounce of infusion of columba, three times a-day. Soap liniment with chloroform was applied along the course of the spine; the bowels were kept free by a dinner pill ; her diet was milk, beef-tea, and wine. Under this treatment she left the hospital on the 12th November, greatly relieved.

Dr. Moore remarked that the symptoms in this case in some respects resembled those associated with abdominal aneurism. In the first place, the pulsation was high up, at the bifrucation of the diaphragm. Pain in the back was complained of, and violent neuralgic seizures, radiating backwards and upwards. On the other hand, there was

no bruit audible, and the neuralgic seizures were periodic, whilst the patient was spanæmic and the menstrual function was deficient. He regarded the pulsation as analogous to what is occasionally found in the thyroid body. No doubt the fact of the deep seat of the abdominal aorta rendered the diagnosis more difficult, but taking into account that the epigastrium is a frequent *locus* of pulsation and pain in females suffering from derangements of the menstrual function, he looked upon the symptoms in this case as functional.

Dr. Moore went on to say that the explanation of the epigastric pain, and pain in the region of the left breast, was a point of great interest. Sickness, headache flutterings, loss of appetite, &c., pointed to loss of nervous influence, more especially of the sympathetic system; and inasmuch as the epigastric region contained the greatest sympathetic plexus, the solar, with its offsets the semilunar ganglia, overlying the aorta and crura of the diaphragm, he thought the seat of the neuralgic pain could thus be satisfactorily accounted for. Again, the superficial and deep cardiac plexus, composed as they are of the sympathetic and cardiac branches of the vagus nerve (the latter believed by some to be also a nerve of the vaso-motor class), and occupying as they do the left mammary region, would rationally explain the pain in the left breast.

With respect to the treatment of such cases, Dr. Moore showed how futile it would be to endeavour to deal with the various symptoms which presented themselves. He advised them to change the character of the blood. This was best done by tonics and chalybeates, the menstrual and other functions gradually attaining a healthy condition, *pari passu*, with the improved condition of the circulating fluid.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 8, 1868.

UNIVERSITY REPRESENTATION.

The important considerations submitted to the St. Andrews Graduates by Dr. Sedgwick, and fully reported in our columns last week, deserve the attention of all University men, but more especially those of the, at present, un-enfranchised Universities. We have from time to time upheld the policy of increasing our University constituencies. We have urged that the University of London might well have been granted two members, and the offer of two between the four Scotch Universities was really niggardly.

But what can be said of the proposal to limit the right of voting to the residential graduates? Surely a more unjust and illiberal proposal was never made. What would be the result of it, if carried out at St. Andrews, has been shown on previous occasions in our pages, and the results of Dr. Sedgwick's investigations fully prove the truth of the statements we have made. We are sure that if only the matter be fully explained to Parliament, a close borough of the description proposed will not be allowed to be erected, but that each member of the University will be enfranchised. What could be more absurd than to give every artisan a vote for the constituency where he resides, but to deprive University graduates of their vote for *alma mater?* This is setting up wages with a vengeance, as the one qualification for political liberty. To enlarge the constituencies generally, but a side-wind—a parenthesis in a single clause—to hand over the representation of a learned body to a minority of its members is an outrage upon common sense which, we trust, the House of Commons will indignantly refuse to perpetrate.

We return to this subject, because it deeply affects the Medical Profession, and because we are too apt to be absorbed in practice, and neglect to lay claim to our rights. Medical men are never loud in their demands, and, in this age of struggling and noise, are apt to allow their rights or privileges, as well as their grievances, to remain unnoticed. It is time they woke up to a keener sense of them, and compelled the public to pass an opinion upon them. Another reason for our urgency in the matter is, that in this instance it is medical men who are exclusively affected. Graduates in Arts and Law of St. Andrews *are* resident, but not those in Medicine, because the old University has no Medical School. Seeking their knowledge elsewhere, those who resorted to St. Andrews for a degree, founded their claim to the distinction solely on their ability to pass the examinations. If residence be of such virtue, then the University of London must abandon its lofty pretensions, and acknowledge that, like its elder Scottish sister, it has no medical school of its own, no home in which to train the aspirants for its M.D., and that consequently for the future it must

"Hide its diminished head,"

and confess that the right to send a member to the great national debates was not deserved, but obtained through an oversight, if not even under false pretences.

Statesmen cannot afford to play fast and loose with principles. In a question like this, even Parliament which can, and does do many arbitrary and unreasonable things, will scarcely meet out one measure to London, but another north of the Tweed. The fact that the Scotch Reform Bill contained a provision for enfranchising the Universities, is a clear indication of this, and the injustice with which the medical Graduates of St. Andrews have been threatened will, we believe, be removed if they only take the pains to enlighten members of Parliament about it.

There is, however, no time to lose. The bill is gradually maturing, and the obnoxious clause may possibly again appear in it. The Association is probably still at work. It would be a great gain if the simple amendment, pointed out by Dr. Sedgwick, were to be adopted by the Government before the meeting of Parliament. This would save much trouble and annoyance, and only act justly by the large body of graduates. But if the Association cannot secure this, every individual Graduate throughout the kingdom should lay his case before the member for his county or borough, as well as before any M.P. to whom he can obtain access.

Such action would, we doubt not, combine the enlightened and liberal members of the House in one phalanx, determined to prevent the erection of a petty and untrustworthy constituency on the ruins of the hopes and rights of the Medical Graduates of the oldest Scotch University.

THE PROFESSION AND THE TOTAL ABSTINENCE MOVEMENT.

Mr. James Haughton, a gentleman well-known in Dublin as an ardent advocate of total abstinence, has published a communication addressed to the medical profession. We regret that we cannot transfer it to our columns in its entirety on account of its length. Mr. Haughton opens his remarks with a recapitulation of the evils which have accrued to society from the use of alcohol, and proceeds as follows :—

"The more the matter is inquired into, the more loudly is it sounded in our ears that to this cause is attributable nearly all our poverty, much more than one-half of our crime, and, at least, one-half of the madness which fills our lunatic asylums with their miserable inmates. Our poorhouses, our prisons, our lunatic asylums would be little needed but for our use of alcoholic liquors. Gentlemen, you may ask me why I address you specially on these questions? We are members, you may say, of the general community ; in what way are we peculiarly accountable to society for those evils you speak of, and which we admit have a real existence ; which we freely acknowledge do call for the serious consideration of every thoughtful, and especially of every educated person? But why are we appealed to more than others? Gentlemen, it is because I conceive that you do stand in a peculiarly responsible position in regard to this important subject that I now address you. Men listen to your advice on this subject. The use of alcohol affects health as well as morals, the latter I consider the far more important point ; but the former by no means to be neglected. But they hang closely together ; and you are responsible for the moral as well as the physical evils flowing from the use of alcoholic liquors, if you are, as I believe you are, too generally regardless of the light which science has, of late years, thrown on the deleterious effects produced by the common use of these baneful liquors by man in his normal or usual condition of health, and by your own use of them as a medicine in numberless cases where other medicines not dangerous to morals would prove quite as beneficial to your patients. This opinion I would not venture to give if I were not fortified in it by the writings and the practice of a large and a yearly increasing number of the most learned members of your body, both at home and abroad, who either protest against the use of alcohol as a medicine, or who recommend much more caution in its use than is still the general practice in the profession. It is sufficient to name such men as Bowman, Markham, Beale, Chambers, Smith, Carpenter, Lankester, Winslow, Monck, Adams, Buchanan, Gairdner, Nicolls, Mudge, Higginbotham, Munroe, Edmunds, Lallemande, Perrin, and Duroy—all men of standing in the profession, whose views on the subject fully justify the opinions long held by teetotallers, that the common use of alcoholic liquors is fatal to the health and happiness of man—that it contains no principle of nutrition, but that, on the contrary, it undermines the constitution, and makes all our diseases more fatal than they would otherwise be. Under all these circumstances, it will not appear strange to you that I, in the evening of my days, should address you specially in relation to your responsibilities regarding this great question, teetotalism. Your influence, as a body, is still cast in the scale against that principle. Through your means almost every family in these lands is impressed with the erroneous notion that the poison alcohol may be safely used. The physician is the friend and adviser in every household ; mothers have implicit reliance in your teachings. How necessary, then, is it to the peace, prosperity, and happiness of the community that your advice on this all-important subject should be guided by wisdom, and that you should clearly and strongly impress on every mind the great truth which science and experience alike enforce, that it is wrong to use alcohol in any form as a common beverage. I may be deemed a mere enthusiast for hoping that any considerable number of the learned body I now address will respond to my appeal. We have already the gratification to number in our ranks some of the most honoured members of your profession ; so that I cannot consider it a vain hope, for one who has served thirty years in this great work, who hopes he has secured the respect of some of you, and who himself has a high personal regard and respect for many of you, to entertain the idea, that some others among you, who have hitherto treated this great question too slightingly, may be induced to direct more of your thoughts to it. I shall only trouble you with one medical opinion, out of many which I could readily produce, as evidence of the propriety of my present appeal. Dr. Markham, late editor of the *British Medical Journal*, universally acknowledged to be well up in the medical literature of the day, says :—'Dr. Munroe, of Hull, has published a lecture 'On the Physiological Action of Alcohol,' and has adopted the uncompromising side of the anti-alcohol question. He goes in for the teetotal system ; and we feel bound to say, as the conclusion of the long discussion was published in this journal on the subject some time ago, that, on the face of it, teetotallers have, from a scientific point of view, the best of the argument. It is something refreshing, therefore, to meet with one who, like Dr. Munroe, practises what science seems to teach. The public, we think, are much indebted to him for making popular the physiological side of this question ; and if he be in error in his teetotal conclusions, he errs, at all events, on the safe side, and errs in accordance with the teachings of physiology, so far as they guide us in this case." I now leave the matter in your hands, and I pray that God may put it into the hearts of many of you to come out boldly in favour of teetotalism."

We cannot but commend the earnest and argumentative spirit in which Mr. Haughton's exhortation is conceived, and which is a favourable contrast to the wholesale and unmeaning denunciations indulged in by many disciples of total abstinence. Neither the profession nor the public will ever foreswear alcohol for mere vituperation, but a large section of them will undoubtedly do so, if it be proved that men of moderation and of astuteness, on whom they can depend, are on the side of total abstinence.

Notes on Current Topics.

The Public Health.

In the last week of the year 1867, the annual rate of mortality was 24 per 1000 in London, 30 in Edinburgh, and 22 in Dublin, 21 in Bristol, 29 in Birmingham, 32 in Liverpool, 32 in Manchester, 23 in Salford, 29 in Sheffield, 25 in Leeds, 26 in Hull, 27 in Newcastle-upon-Tyne, and 32 in Glasgow. In the whole of the towns together, the rate was 26 per 1000.

In London, during the week, the deaths registered were 1433. The average number of the fifty-second week of the year, corrected for increase of population, is 1595, so that the actual mortality was 162 less than usual. We thus find that the week was a very healthy one in London. The following particulars of the causes of death are selected from the returns :—

"Six hundred and eighty-two persons died under 20 years of age, 197 were 20 and under 40, 227 were 40 and under 60, 259 were 60 and under 80, and 68 were 80 years of age and upwards.

"Zymotic diseases destroyed the lives of 289 persons, 237 of whom were under 20 years of age. Whooping-cough was the most fatal disease in the zymotic class, and caused the deaths of 55 children ; 10 of these occurred in Kensington, 8 in Lambeth, 5 in Westminster, 3 in each of the districts of St. Luke and Bermondsey, and 26 in 20 other districts. Fifty deaths occurred from measles ; 10 in Newington, 6 in Kensington, 4 in Marylebone, and 3 in each of the districts of Clerkenwell, Bethnal-green, and Lambeth, and 21 in 17 other districts. Scarlatina caused 30 deaths ; 6 in Pancras, 5 in Lambeth, 3 in St. George, Hanover-square, 3 in Clerkenwell, and 13 in nine other districts. Seventeen deaths from smallpox, 12 from diphtheria, 52 from typhus, and 11 from diarrhœa were registered in the week.

"From diseases of the respiratory organs (exclusive of phthisis) 345 persons died ; of this number bronchitis carried of 202, pneumonia 86, and asthma 18 persons.

"One hundred and sixty-four persons died last week from phthisis, 72 from diseases of the heart, and 129 from diseases of the brain and nervous system."

THE PAST YEAR.

As the returns are now completed for the year 1867, it may be well to add to the above items a few particulars as to the whole year, the varying state of which it has been our duty to chronicle from week to week :—

"The annual rates of mortality, per 1000 persons living, in the great cities of the United Kingdom during the year 1867, arranged in order from the lowest, are as follow :— In London 23, Bristol 23, Birmingham 24, Sheffield 25, Hull 25, Leeds 27, Edinburgh 27, Dublin 27, Salford 29, Glasgow 29, Liverpool 30, Manchester 31, Newcastle-on-Tyne 31. The mortality showed a decrease in nearly all the towns upon the rates which prevailed in 1866. Among those towns which did not suffer from the cholera epidemic last year, the improvement was most marked in the borough of Leeds.

"In London during the 52 weeks comprised in the returns of the present year, the births have been 112,264, and the deaths 70,588. The births in the year 1866 were 107,992, and the deaths 80,129.

THE statistics of the large towns of the Kingdom for whole years are now ready in a form available for comparing them for the three years last past. It appears that the annual rate of mortality for the years 1865, 1866, and 1867 respectively was per 1000 persons living as follows :—

Birmingham, 25, 24, and 24 ; the density of population (persons to an acre) in 1867 was 44. Hull, 27, 24, and 25; density, 30. Bristol, 24, 25, and 23 ; density, 35. Edinburgh, 28, 27, and 27 ; density, 40. Dublin, 26, 28, and 27 ; density, 33. Salford, 29, 29, and 29 ; density, 22. Glasgow, 33, 30, and 29 ; density, 87. Manchester, 33, 32, and 31 ; density, 81. Leeds, 31, 33, and 27 ; density, 11. Liverpool, 36, 42, and 30 ; density, 96. A great reduction in the death-rate of Liverpool may be observed since a large sum of money was expended on sanitary improvements. Many houses have been demolished, middens have been emptied or removed, and the ventilation of the sewers has diminished fever. The annual mortality in Sheffield in each of the years 1866 and 1867 was 28 and 25 ; density, 10. In Newcastle-on-Tyne the annual mortality in 1866 and 1867 respectively was 32 and 31. The results for London in each of the three years 1865-7 respectively were, annual mortality per 1000 of population, 25, 26, and 23; density, 40. It may here be noticed that Bristol, Leeds, and Liverpool, have each a medical health officer. Birmingham, Hull, Salford, Manchester, Sheffield, and Newcastle-on-Tyne have no medical health officer, but most of these towns, however, have introduced some sanitary improvements. London has 47 health officers, all of whom have devoted much time and attention to their offices.

Drainage.

A FEW months ago we gave an account of Mr. Child's statements respecting the plan of drainage adopted by the authorities at Milan. He again brings the subject forward, and seems to regard this plan, which has stood the test of ten years' trial for a city of 200,000 inhabitants, as suitable for adoption by the towns of the Thames valley, which are now at their wit's-ends for a mode of disposing of their sewage. An estimate of £54,000 for draining Oxford has been submitted, and this would impose an expense, in proportion to the inhabitants, of some 35 per cent. more than the main drainage scheme has cost Londoners. Mr. Child believes that £5000 would give the Milan plan a trial in a town of moderate size, and he is desirous that the Government should lend the money to some town willing to make the experiment.

It is quite clear that the great questions of drainage grow rapidly in importance and tend to enforce themselves upon us in a most unpleasant manner. The towns that have had to try to solve the problems of the age are constantly increased ; and, in relation to the public health, medical men must continually pay attention to such matters.

Royal College of Physicians of London.

THE Gulstonian, Croonian, and Lumleian Lectures for this year will be delivered by Dr. John Harley, Dr. Bence Jones, and Dr. Guy. They will, no doubt, attract a select audience, and prove as valuable as those of other years.

We are informed that the arrangements of this College are now complete for the granting of a double diploma in connection with the College of Surgeons, but the authorities of Lincoln's-inn are said to be still busy preparing a report. We presume that some day this great step will be really accomplished, and that the two Colleges will be actually seen working together; but he would be a bold prophet who would venture to say *when* this shall be brought about.

King's College School.

ON the 31st ult. a dinner of the old pupils of this school was held in the hall. The Rev. F. J. Manning, D.D., said to be the first pupil who entered the school, occupied the chair. A proposal was made at the dinner to found a scholarship, which we hear is likely to be carried out.

Technical Instruction.

BY a minute lately passed, important facilities for scientific education have been afforded to elementary schools, whether aided by the State or not. The plan is to assist local efforts to establish scholarships and exhibitions. These are to be awarded by competition to the most successful students, according to the conditions imposed by the Committee of Privy Council.

These privileges are to be restricted to artisans or poor students of from 12 to 16 years of age.

A Rare Plant.

THERE may now be seen in the Royal Botanic Gardens, Regent's Park, a very rare kind of agave in flower. It is believed by many to be the first of the kind that has ever flowered in this country. The flower spike is some ten feet long, the point nearly touching the ground. The specimen was raised from seeds obtained from Mexico, and planted in the Botanic Gardens about 25 years since. It is labelled *Agave dasylirioides*, but many of the visitors seem inclined to take exception to the name, and point out how much it differs from other sorts of agave.

The Vaccination Returns.

ABSTRACTS have been published of returns from the parishes of Scotland, respecting the Act to "extend and make compulsory the practice of vaccination in Scotland." During the first half of last year there were 2072 successful, and 72 unsuccessful cases. Twenty-two certificates were granted that the patient was not susceptible to the virus. There were also 204 cases in which vaccination was performed ineffectually on account of the patient having been successfully vaccinated on a previous occasion. There were 1221 persons not in receipt of parish relief vaccinated.

Further, there seem to have been 4679 defaulters under the 18th section of the Act. There were only four prosecutions under the 25th section, and of these only two resulted in conviction and penalty.

We are informed that the new provisions for the supply of lymph, have been successful.

A New Sanitary Journal.

THE growing importance of the study of hygiene, and the new-born interest which has attached to it of late, have given birth to a new periodical, the *Public Health*, which has just issued its first number, and will appear monthly if it shall receive a fair amount of public support. We learn that it is under the direction of Dr. Hardwicke, Medical Officer of Health for Paddington; Deputy Coroner for the City of London, and Secretary to the Health Section of the Social Science Association. We wish the venture every success, for there is undoubtedly a place for it as a chronicle of important matters which could not find a suitable place either in the medical or general press.

The Sources of Tropical Fevers.

DR. BOSE, the native lecturer in anatomy in the Bengal Medical College, has communicated some very important researches on the origin of epidemic fevers in India. He attributes these outbreaks in most cases to the disturbance, in the execution of public works, such as digging of tanks and making of roads and railways, of the soil which has been charged with miasmata by inundations and destructive tornadoes. He traces the occurrence of many of these epidemics to the influence of an inundation about fourteen years ago, which, he says, has, by its effects on the soil ever since, given birth to malaria whenever the strata were disturbed; and he anticipates similar results from the cyclone of 1864. Dr. Bose's researches are corroborated very closely by the circumstances of the late epidemic at the Mauritius, which we pointed out as having occurred under precisely similar conditions.

Contagious Diseases in Ireland.

WE learn that the office of Local Secretary for Dublin to the Association for the Extension of the Contagious Diseases Act to the civil population, has been accepted by Dr. Hamilton Labatt. Dr. Labatt is the author of a well-known memoir on syphilis, and is a Member of the Council of the Royal College of Surgeons in Ireland. There is, probably, not a city in Europe so peculiarly situated as Dublin, in respect of the matter to which Mr. Labatt has to apply himself, and the task of investigation will be no easy one. The characteristic chastity of the Irish female population, their greatest virtue, renders clandestine immorality comparatively very unfrequent, and, as a natural sequence, aggravates, in a marked degree, the "social evil." In a strength of 750 men, the 74th Highlanders has, in one week lately, sent twenty-two men to hospital for venereal diseases, a proportion equal, if it were mentioned, to nearly 150 per cent. of the entire force invalided from this cause in the year.

Prescribers v. Dispensers.

THE Apothecaries of Philadelphia have drawn out on themselves great discontent on the part of the profession there, and an intestine war has sprung up, which has led to many recriminations.

The physicians accuse the Dispensers *inter alia* of appropriating prescriptions confided to them, and advertising them for sale to the general public as their own—of combining the sale of pens and ink, lollypops, soap, and tipple, with the dispensing of medicines, and, at the same time, advising and prescribing as regular medical practitioners.

These are serious charges, and offensive to our ideas of propriety. Are we quite sure that a certain class of general practitioners in Great Britain are clear of such practices?

DR. GEORGE HARDY, F.R.S., has recovered from the illness which has so long been a source of deep sympathy with a large portion of the Profession in London, and is able to resume his professional work.

THE death of Mr. Teale, of Leeds, although at the age of 67, seems to have produced a widespread feeling of loss and regret. His name has long been in the front rank of Surgeons, and his private character had endeared him to a large circle of friends.

THERE is a talk of the London College of Surgeons appointing authorities in biological science to assist at the examinations. Some people believe that this will actually be done. If it should be, nothing can surprise the Profession afterwards.

DR. DRUITT has resigned the office of Medical Officer of Health for the district of St. George, Hanover-square.

THE authorities of St. Mary's Hospital Medical School have advertised a vacancy in the chair of Pathology, with which is combined the curatorship of the museum.

THE Chair of Physiology at Charing-cross Hospital is also vacant.

THOSE who have been so much interested in the health of the Princess of Wales, will be glad to hear that H.R.H. attended church at Sandringham on Christmas morning.

THE accident to Mr. Gladstone, of which some of the papers made so much, was of a trifling nature. It is true that a splinter struck the eye of the right hon. gentleman, while he was watching the felling of his trees, but the injury it inflicted was slight, and the sight at no time in peril.

THE daughter of the late Dr. Southwood Smith, is to receive a small pension from the civil list.

WE extract the following from the (Official) *London Gazette* of Tuesday:—"The Queen has been pleased to appoint Mr. Peter Wyatt Squire, to be chemist and druggist upon the establishment in ordinary to Her Majesty, jointly with his father, Mr. Peter Squire."

Upon reference to the back volumes of *The Gazette*, we find Mr. Squire, sen., obtained the appointment with the medical staff about thirty years since. The official announcement is dated August 8, 1837. Mr. Squire is the author of "The Companion to the British Pharmacopœia," a work in great repute with the profession.

DECEMBER, 1867.

THE past month has been a very remarkable one—characterised by constant and violent oscillations of temperature and other unusual weather manifestations. Mr. R. H. Allnatt, of Frant, thus sums up the meteorology of the month:—

"On the 1st, during the tempestuous gale, the morning temperature was 53 deg., and the night 38 deg.; six deg. above the freezing point of Fahrenheit. The following morning a depression took place of 13 deg. morning temperature and 12 deg. night. A rise then occurred of 4 deg. mean temperature, and up to the 9th it fluctuated between 30 and 33 deg., when

it again sank 5 deg. During the night of the 9th and morning of the 10th the cold was excessive, and the minimum thermometer indicated 11 clear degrees of frost, the sky became overcast with cloud and mist, and atmospheric saturation resulted. On the following morning the temperature at 10 A.M. had risen 6 deg., and produced a rapid thaw. On the 11th the temperature had risen to 45 deg., 10 deg. above that of the preceding day. On the 12th night and morning temperature attained respectively 44 and 53 deg., a rise of 10 deg., and continued above freezing till the 19th, when it again sank to a mean of 32·5 deg., and on the following day became still more depressed. It then fluctuated between 41 and 38 deg. until the 29th, when it fell, and the mean to the end of the month was 1·6 deg. below freezing.

"There were 16 hard frosts during December, the combined action of which, according to calculations from aggregate temperature below 32 deg., or the freezing point of Fahrenheit, was 81·5 deg., thus making the mean of each night about 6 deg. of clear frost. The mean of night temperature above the freezing point on the remaining nights amounted to nearly 7·5 deg. So that the average temperature of the month was on the whole rather above than below the standard. Atmospheric pressure, except on the 1st, during the period of the great gale, was persistently steady, and ranged below an inch. Snow, hail, sleet, or rainfall occurred on 12 days, and in combination gauged 2·67in., which is above the estimated average. Ozone was abundant, and considerably exceeded the mean of the season. It attained its maximum on ten days. On the 19th there was no perceptible action on the newly-exposed test, but it was not a period of antozone, inasmuch as that the coloured slip was also unaffected. On the 20th, however, a full-coloured ozonoscope, which hung by the side of a virgin test, owing to the antagonistic action of antozone, was deprived of upwards of 8 deg. of its purple hue. In the afternoon the slips showed signs of reaction, and at 2 P.M. of the 21st, the wind blowing S., the ozonoscopes attained their full development. Atmospheric saturation occurred on the 1st, 5th, 10th, 11th, and 29th, and the psychrometic range was from 80 to 100. Some latitude, however, may be given to the literal accuracy of these readings, as during the late frosts evaporation from the wet bulb has necessarily proceeded very languidly."

Foreign Medical Literature.

CASE OF MULTIPLE STRICTURES IN THE SMALL INTESTINES.

COMMUNICATED BY PROFESSORS MALMSTEN AND KEY.

Translated from the *Hygiea* for July, 1867, p. 300,

By W. D. MOORE, M.D., Dub. & Cantab., M.R.I.A., L.K.Q.C.P.,

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY, AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

W——, a divorcée, aged 33, was admitted into the medical clinique of the Seraphim Hospital, from Stockholm, on the 24th February, 1867.

Status antecedens.—Both her parents are dead, but the patient is unable to say of what disease they died. Neither of them, however, nor any other of her relatives, ever suffered from phthisis, or from any serious abdominal affection. She, herself, as a child was healthy, except that she often passed lumbrici in considerable quantity. At 20 she married and passed through two confinements, the latter of which, nine years ago, was particularly severe. She nursed her last child for eleven months, and did not remark her strength giving way to any considerable extent. But three years after her last confinement, she miscarried in the second or third month, as she herself believes, in consequence of over effort in lifting a bath-tub. On this occasion she lost much blood, kept her bed for three months, and has never since regained her former strength. From this time she has complained of dyspeptic derangements, consisting in pain and griping in the abdomen, but since about seven ells of tape-worm have come away, these symptoms diminished, though, on the other hand, she began to emaciate, felt a gradually increasing languor, so that she was tired on the slightest exertion; her spirits became depressed; she was easily set crying, and often suffered from headache; her appetite was, at first, tolerably good, but gradually fell off; menstruation, which had before been regular, ceased two years ago. Her hygienic circumstances, which had previously been good, having in the interval become unfavourable, the latter years having been particularly unfortunate for her, the symptoms just described became aggravated, and she began to be occasionally troubled with a loud, hoarse cough, at first dry, but during the last six months accompanied with scanty expectoration, occasionally streaked with blood. About a year ago she began to be troubled with fulness and spasms in the abdomen, with nausea and occasional vomiting. The latter has usually followed the use of food, which she has borne only in the liquid form (chiefly beef-tea, but not milk). The vomiting itself was not attended with pain, but during the time (from one to three-quarters of an hour) which elapsed between the ingestion of food and the vomiting, the patient sometimes, but not always, had severe cardialgic pains, radiating from the epigastrium to the back and sides. The vomited matter consisted of mucus and undigested food, but she denies having found any blood in it. At the same time, she began to suffer from diarrhœa, recurring five or six times in the day. The motions were never bloody, and were not accompanied with tenesmus. She was admitted into the dispensary hospital in the end of September, and was discharged, at her own request, in the beginning of November. During that time she was treated with oily emulsion, hydrocyanic emulsion, and iron with bicarbonate of soda. After her discharge from hospital, her state became worse, the vomiting, diarrhœa, and abdominal pains returned. She had occasional night sweats. Once or twice there was slight jaundice, which soon disappeared. She has latterly been confined to bed, and shortly before Christmas she observed a swelling in her legs, which, however, again disappeared after about a fortnight's rest in bed. She has sometimes even observed that her face was swollen. For some days before her admission, the motions, which varied from four to six in the day, were occasionally attended with griping. After her admission, she had an anodyne stupe; on the 25th, oily emulsion; on the 26th, an emulsion of myrrh and iron; and on the 27th, a sinapism to the abdomen.

Status præsens, 27th February.—The patient is of middle size, very thin. She is extremely weak, but is quite clear in her intellect. She had some sleep during the last few nights, without perspiration. Her temperature is 99·6° F. Her skin feels dry.

The sound on percussion over the greater part of the front of the chest is full and clear, without any perceptible difference between the two sides. On the right side, dulness commences at the fifth intercostal space, and extends three inches downwards. Pectoral fremitus is tolerably strong over the front of the chest. The respiration is superficial, vesicular with mingled mucous râles. There is not very much cough. The expectoration contains air; no elastic filaments can be discovered in it. The cardiac dulness commences in the fourth intercostal space, and extends 2 inches downwards, and about 1½ inches outwards from the edge of the sternum. The impulse is felt in the usual situation. The sounds of the heart are weak, without any accessory murmur. The action of the heart is considerably increased on the least exertion. The pulse is small, about 100. Anæmic murmurs in the cervical vessels.

The abdomen is somewhat swollen, very tender on pressure, especially in the epigastric region, it yields throughout a normal sound on percussion. Gargouillement is perceptible on palpation. No tumour or inequality can be discovered, there is no dropsical effusion. The patient has, for the last few days, not vomited more than twice daily. The vomited matters were not bloody, and consisted chiefly of mucus. The abdominal pains have greatly teased the patient, who states that they now occur at other times than after food has been taken. She has no appetite, but great thirst. She had a tolerably loose motion last night, without blood or griping.

The urine, which the patient thinks increased in quantity during the last week, is rather dark-coloured; its specific gravity is 1·017, it is free from albumen.

28th.—The pain and tenderness in the abdomen have increased, and extend principally to the right side. The patient has great difficulty in drawing her breath; she has had no vomiting, nor any action of the bowels since yesterday. Her sleep during the night was disturbed. Ordered to be kept quiet, and to get morphia and bi-carbonate of soda.

Same day, evening.—The patient is now less sensitive to pressure, complains of pain in the right side. The dulness on percussion begins on the right side at the fifth rib, above that, the sound on percussion is clear, and the vibrations of the voice are distinct. In the right lateral region the vibrations of

the voice seem inferiorly to be weaker than in the corresponding part of the right (sic) side. But on account of the abdominal pains and the patient's extremely weak condition, a complete examination of the chest cannot be made. The respiration is extremely superficial and rapid. The respiratory murmur over the front of the chest is indistinct, over the right lung scarcely any respiration is heard; over the left some feeble râles are audible. There is great dyspnœa. The cough is inconsiderable, without expectoration. The pulse is small, about 120. The urine, the specific gravity of which is 1·016, is free from albumen, and contains but a small amount of chlorides.

March 1.—During the night, the patient had a couple of hours disturbed sleep. Her state was in other respects unchanged. She had neither vomiting nor discharge from the bowels since 28th February.

2nd.—The sound on percussion over the front of the right side is somewhat duller than on the left side. The pectoral fremitus is weak, but distinct over the front of both lungs. Respiration continues as before. The tenderness and the pains in the abdominal region are likewise rather diminished over the right side. Dyspnœa.

3rd.—During yesterday, the patient lay for the most part in an occasionally interrupted stupor, without complaining of any severe pains. She died quietly to-day at 10.30 A.M.

The changes found at the post-mortem examination on the 7th of March were described by Hr. Key, as follows:—

The body was apparently slight, though it presented a tolerably thick panniculus adiposus over the abdomen. Faint but extensive lividity on the posterior surface of the body. The skin over the abdomen presents a greenish yellow discolouration. There is no cadaveric rigidity. The muscles are particularly pale. The right lung, which collapses imperfectly, pushes the heart somewhat over to the left. The right pleura contained about twenty-five ounces of straw-coloured fluid, with numerous fibrinous flocculi. Over the entire of the lower lobe, as well as over the posterior part of the superior, the pleura is dry, dull, and (particularly on the posterior part of the lower lobe) covered with a yellowish grey, rather thin, fibrinous layer, adhering more or less firmly to the surface of the pleura. On a surface the size of a hen's egg posteriorly at the lower margin of the inferior lobe are numerous ramified, yellowish grey striæ, which, in some places, exhibit ampullular dilatations, and seem to be embolised lymphatic vessels. With the exception of a small, soft atelectatic focus in the infero-posterior margin, the pulmonary substance is in the back part of the whole of the lower lobe more resistant than usual, with a dry, reddish grey, finely granular surface of section, nowhere crepitating, considerably more brittle than is normally the case, and on strong pressure, yielding a pultaceous mass. In the anterior half of the lower lobe the parenchyma is soft, skin-like to the touch, only slightly crepitating, its surface of section is smooth, of a bluish red colour, yielding on pressure a somewhat turbid, but slightly frothy fluid, in not very abundant quantity. The middle lobe is throughout pale, tolerably dry, and entirely permeable to air. The upper lobe is, for the most part, of the same nature as the middle, but in the posterior fourth it is almost atelectatic, with soft but strong, not crepitating parenchyma, and a livid surface of section, from which on pressure a small quantity of not frothy fluid exudes. About in the middle of the upper lobe, the parenchyma surrounding a medium-sized bronchus is in a focus of the extent of a walnut sclerotic, of a whitish grey, in spots highly coloured. Here and there, in this focus, are seen small, more purely white, points; in the centre of the part too, a small caseous focus was found. This was ascertained on closer investigation to be a bronchus, whose calibre was filled with the caseous mass. The white points appearing in the sclerotic focus seem to be small, thickened bronchi, whose calibres are here and there distinctly perceptible. The bronchial glands are deeply coloured, and are tolerably large, with caseous metamorphosis in a couple of smaller foci. The left lung is throughout its entire extent attached to the thoracic wall by means of particularly firm adhesions of connective tissue. In the posterior parts of the upper, and in almost the whole of the lower lobe, the lung is considerably more resistant than is normally the case. On cutting through the lower lobe the latter crepitates only in the anterior margin, and exhibits in general a rather highly speckled surface of section. From the posterior edge it is, for the extent of half an inch inwards, of a dark livid appearance, and the parenchyma is here soft, yielding on pressure a small quantity of blood-coloured fluid (atelectasis). Strings of the same nature, varying in width, are continued within the lobe, which otherwise, with the exception of the permeable anterior margin, is of a greyish red colour, with a finely granular surface of section. The parenchyma is here brittle, and easily breaks up into a pulpy mass. The upper lobe is posteriorly highly œdematous, in the anterior portions it is otherwise normal, but with a slight thickening of the connective tissue around the vessels and bronchi; there is no sign of circumscribed foci or tubercles.

The heart is small, containing in both sides some firm fibrinous coagula. The muscular structure of both ventricular walls is rather thin, with a brownish grey tint. the wall of the right ventricle is moreover in its superficial layer traversed by yellow striæ. The endocardium in the left ventricle is whitish grey, and is more opaque than usual. The valves of the aorta, as well as both lobes of the mitral valve, are slightly thickened, but without retraction.

On opening the abdominal cavity no effusion is met with, nor any extensive peritonitis. The stomach is rather highly distended, and is of old attached by a couple of fine, whitish grey, firm adhesions to the under surface of the liver. Twelve inches below the duodenum, and thence down to the valvula coli, are seen in the small intestine a number of cicatrix-like contractions, placed at different distances, some only a couple of inches from one another. In many places they resemble cicatrices with strictures after the healing of intussusceptions. Thus one piece of intestine seems with rapid diminution to project, as it were, somewhat into the other, while the peritoneum is greatly thickened about the contracted parts. From the peritoneum thickened at the contractions, more or less numerous fimbriæ of connective tissue project, of which some are livid, in consequence of great sanguineous congestion in their elongated vessels, which densely traverse the fimbriæ. The peritoneum itself is likewise strongly injected, both in the seats of contraction themselves and in their immediate vicinity. The mucous membrane of the stomach is particularly pale, in the antrum pylori exhibiting a number of closely placed, small, low, granular elevations, but otherwise it is not thickened. In the lesser curvature and the greater part of the saccus cæcus is a superficial gastro-malacic dissolution of the mucous membrane. The muscular coat is not thickened, not even at the pylorus.

The mucous membrane of the duodenum is in general rather thick and softened, on the lower half it assumes a slate-grey colour, exhibiting a number of small, black points, depending on deposition of pigment in the apices of the villi. In the first cicatrix-like contraction of the jejunum, rather more than 24 inches below the stomach, there is found in the mucous membrane a cicatrix 1½ centimètres in breadth, which from the mesenteric attachment runs up towards the free margin of the intestine, leaving there only a slight bridge of mucous membrane untouched. Around the cicatrix the uneven contracted margins of mucous membrane are intimately adherent to the cicatricial tissue itself, which consists of a tolerably smooth, slate-grey, firm, tense, connective tissue. Nowhere is there any trace of tubercles. The next two strictures, which are situated at nine inches distance from each other, are so considerable that their calibres scarcely admit the introduction of an ordinary pencil. They were not slit up, in order not to injure the preparation. The cicatrices found lower down in the intestine, at a greater or less distance, at each stricture, exhibited in general precisely the same characteristics as those above described. Some of them went quite circularly round the whole intestine, others in a longitudinal direction, some were quite small and rounded. All were healed and very tense, only in some few were slight losses of substance seen, caused by recent ulceration. In none were tubercles found, nor could any such be discovered in the thickened and injected peritoneal investments corresponding to the cicatrices. Down in the ileum the strictures and cicatrices lay much closer than in the jejunum, and the last two inches of the ileum consisted of a single cicatrix. The mucous membrane of the large intestine was pale, thin, without a trace of any morbid process.

The spleen was particularly small, adherent to the diaphragm by old and firm false membranes. In consistence it was firm, with smooth, reddish grey surface of section. The vascular walls were thick; the trabecular system was highly developed, the Malpighian bodies were small.

The left kidney exhibits on its surface rather well-marked fœtal lobulation; it is to the touch rather firmer than usual, the capsule is slightly thickened with increased adherence. The stellulæ Ferreinii are rather more than usually developed. The surface of section is particularly smooth, shining, with a sharp edge.

The pelvis is of a pale, greyish white. The Malpighian bodies project as red points. The pyramids likewise are pale, here and there with rather yellow-streaked papillæ. The right kidney very strongly resembles the left. The upper surface of the right lobe of the liver is adherent by means of some small, firm, particularly thin false membranes to the diaphragm, as the under surface of the left lobe is to the stomach, as above remarked. The liver is particularly thick and plump, soft and doughy to the touch. The surface of section is remarkably dry, of a pale yellowish grey, leaving an abundant coating of fat on the knife. Acini, of the normal size, exhibit in their centres a somewhat depressed, brownish red point, while they are otherwise throughout of an uniformly yellowish grey colour. The substance of the liver is more brittle than usual.

Hr. Key's view of the case was as follows :—

Undoubtedly, the above instance of such extremely numerous and considerable strictures in the small intestines is unusual, and, for my own part, I have never seen anything comparable to it, nor can I recollect to have seen anything like it described. And these strictures have, moreover, been developed in such a latent manner, that they could scarcely be suspected by anyone during life, as the symptoms connected with the digestive organs might easily be explained in another mode. The first question to be answered is this :—Of what nature are the cicatricial formations in the tumour? On what process do they depend? And the second question is: When did this process begin? As to the nature of the cicatricial formations, it cannot be denied that at first sight there seems to be much in favour of their tubercular character. Their distribution in the intestine, their tendency in general to spread circularly, their marked proliferations of a tense connective tissue in their fundi and edges, the considerable reaction in the peritoneum over the fundi of the ulcers, would all mark the latter as tubercular. But against such an interpretation we have, on the other hand, the very strong testimony of the fact, that all the ulcers were perfectly healed, with the exception of some small fresh ulcerations in the cicatrices themselves. Moreover, nowhere in the cicatrices, in their surroundings, in the thickened peritoneum external to them, or elsewhere in the intestine, could any tubercles be discovered. If the cicatrices were the results of tubercular ulcers, we should here have before us a case, where the most intense tubercular process in the intestine finally ceased, leaving behind it completely cleansed and cicatrising sores. That tubercular sores may partially—nay, that isolated ulcers may, in such a manner, be entirely healed is well-known ; but that such a process, presenting the intensity which here existed, should altogether cease, is by no means admissible. Besides, no tubercles were met with in any other organ. The sclerotic focus in the centre of the upper lobe of the right lung, which fully explains the woman's hacking cough, &c., was evidently dependant on a chronic peribronchitis and interstitial pneumonia, and no tubercles were discoverable in either lung.

That the cicatrices should be the results of typhous ulcers cannot be admitted—not merely because the woman, according to the report of her case, never had any typhoid fever, but principally because the whole cicatricial formation in the above description, is so unlike that which takes place in typhous ulcers—which, in consequence of the slight formation of connective tissue in their fundi, extremely rarely, if ever, form strictures by continuous cicatrices.

It remains for us, therefore, only to assume that a chronic follicular enteritis was the process, which laid the foundation of the extensive formation of ulcers and cicatrices ; and there is nothing in the nature of the latter inconsistent with this assumption. That such considerable strictures, however, should have arisen in so many places as results of such a process, is in the foregoing case worthy of attention, equally with the insidious course of the process, and the resemblance of the symptoms to those accompanying constriction of the pyloric region of the stomach. One could scarcely have, during life, diagnosed the situation of the strictures, or suspected such serious changes in the small intestines, while the stomach was so little affected. As to the date of the setting in of the process, there is no reason for putting it farther back than about a year, when the woman, as the Journal shows, began to suffer from diarrhœa, with other severe derangements of the digestive functions.

EXTRACT OF MEAT FOR ABYSSINIA.—The Government has contracted with Liebig's Company for a supply of their "extract" for the troops. Each soldier will be provided with a number of small jars, which can be easily carried.

Medical News.

OXFORD, DEC. 31.—The Examiners for the Radcliffe Travelling Fellowship, Dr. Acland, Dr. Rolleston, and Sir B. C. Brodie, have given notice that the next examination will commence on Monday, February 3, at 10 A.M., in the Museum. Candidates are requested to forward notice immediately to Dr. Acland of their intention to present themselves.

NEW VACCINATION ACT.—The Act passed on the 12th of August last to Consolidate and Amend the Laws relating to Vaccination in England, and of which we long since gave an elaborate abstract, came into force on the first day of the year, and we are therefore now called upon to carry it out. With the exception as to the divisions and districts of unions and parishes previously made, and to all contracts made and not completed, and also as to liabilities and responsibilities incurred, the Acts and parts of the Acts named are repealed on and after the 1st of January, 1868. The guardians of unions and parishes, where the same have not been divided into districts for the purpose of vaccination, may form districts and consolidate or alter the same, subject to the approval of the Poor-law Board. When a scheme is approved the guardians may enter into a contract with a duly registered medical practitioner for the performance of vaccination of all persons resident within such district, and he is to be termed the public vaccinator, and when the existing contracts terminate the guardians are to enter into others with such modifications as the circumstances render necessary, subject to the approval of the Poor-law Board. The qualifications of vaccinators are to be prescribed by the Lords of the Privy Council and regulations to be made. The Privy Council may, in addition to the payments made by guardians to the vaccinators, allow one shilling for each child whom the vaccinator has successfully vaccinated. The fee to be paid by guardians is not to be less than 1s. 6d. in each case for a successful performance within a mile, and 2s. over one mile and under two, and 3s. for every vaccination done at any station over two miles' distance from his residence. Provision is to be made in the contracts as to conditions and as to re-vaccination. No contract as to vaccination is to be valid unless approved by the Poor-law Board, and the board is empowered to determine the same at any time. No payment is to be made out of the poor-rate unless the Poor-law Board have approved the contract, and no public vaccinator is to be paid for vaccination out of his district. In places where the population is scanty, arrangements may be made for the attendance of a public vaccinator at intervals of three months. The Registrar-General is to provide forms. On a child being registered, or within seven days, the registrar is to give to the parent or other person a notice to have the child vaccinated within three months, and in the following week after the operation the child is to be taken to the vaccinator for inspection. Certificates of successful vaccination are to be transmitted to the registrar, and a duplicate given to the parent; and where vaccination has been performed by a medical practitioner, not being a public vaccinator, a certificate is to be forwarded to the registrar of the district. The registrar is to be paid fees by the guardians. There is an express declaration in the Act, that vaccination is not parochial relief. Every parent or person neglecting to procure the vaccination of a child or causing the same to be inspected, to be liable to a penalty, on summary proceedings, of 20s. Justices may make an order for the vaccination of a child under 14, and in default impose a penalty of 20s. Costs, &c., may be awarded on a person being improperly summoned. Inoculation for the small-pox with variolous matter is to be deemed an offence, rendering the operator liable to one month's imprisonment.

DEATH OF PROFESSOR MACDOUGALL.—We regret to announce the death of this gentleman, who has been for some time in a state of impaired health, and who this session was unfortunately unable to resume his usual duties at the University of Edinburgh. Since the commencement of the present session the Moral Philosophy class has, with the sanction of the Senatus, been taught by Professor Fraser. The late Professor Macdougall was for a good many years teacher of moral philosophy in the Free Church College, and in 1852, on the demise of the eminent Professor Wilson, he was chosen to succeed him as Professor of Moral Philosophy and Political Economy.—*Edinburgh Courant.*

DEATH OF MR. T. P. TEALE.—The *Times* of Jan. 1 thus records the decease of Mr. Teale:—"Mr. Thomas Pridgin Teale, an eminent consulting surgeon at Leeds, died at his residence at that town yesterday, aged 67, within one day. The deceased held high rank in his profession, being one of the Medical Council, and also one of the Royal Medical Commissioners. He was likewise a Fellow of the Royal Society. His illness had only been of short duration, and his death was somewhat unexpected."

LIST OF MEDICAL PUBLICATIONS.

Baird (James) Management of Health: a Manual of Home and Personal Hygiene: being Practical Hints on Air, Light, and Ventilation; Exercise, Diet, and Clothing; Rest, Sleep, and Mental Discipline; Bathing and Therapeutics. (Weale's Rud. Ser. 112.) 12mo, cl. sd. xi—108. Virtue.

Braithwaite's Retrospect of Medicine: being a Half-Yearly Journal, containing a Retrospective View of every Discovery and Practical Improvement in the Medical Sciences. Vol. 56. July—Dec., 1867. post 8vo, pp. xlviii—407. Simpkin.

Dickinson (William H., M.D.) On the Pathology and Treatment of Albuminuria. 8vo, pp. xxiii—265. Longmans.

Dewar (James) On the Application of Sulphurous Acid Gas to the Prevention, Limitation, and Cure of Contagious Diseases. With Cases illustrative of the Advantages to be derived from its Employment. 2nd edit. 8vo, sd., pp. 61. Edmonston.

Fergusson (Sir William) Lectures on the Progress of Anatomy and Surgery during the Present Century. 8vo, pp. xi.—302. Churchill.

Fox (Wilson, M.D.) On the Diagnosis and Treatment of the Varieties of Dyspepsia, considered in relation to the Pathological Origin of the different forms of Indigestion. 2nd ed. 8vo, xiv.—247. Macmillan.

Golding (B.) Origin, Plan, and Operations of the Charing-Cross Hospital. Edit. by his Son. 8vo. W. H. Allen.

Guernsey (H. H.) Application of the Principles and Practice of Homœopathy to Obstetrics and the Disorders peculiar to Women and Children. 8vo, x.—752. Philadelphia.

Half-Yearly Abstract (The) of the Medical Sciences: being a Digest of British and Continental Medicine, and of the Progress of Medicine and the Collateral Sciences. Vol. 4. July—Dec., 1867. Post 8vo, pp. xii.—372. Churchill.

Harris (E., M.D.) Cholera Prevention; Examples and Practice. 8vo. New York.

Hewitt (Graily, M.D.) Diagnosis, Pathology, and Treatment of Diseases of Women, including the Diagnosis of Pregnancy. 2nd ed., revised and enlarged. With illustrations. 8vo, pp. xxxii.—700. Longmans.

James (J. H.) On the Distinctive Characters of External Inflammations, on Inflammatory or Sympathetic Fever, and the Results of 36 Years' Experience of the Effects of Bleeding, ascertained from Private Practice only. 8vo, pp. viii.—104. Churchill.

Kestevan (W. B.) Manual of the Domestic Practice of Medicine. 3rd edit. Fcap. 8vo, pp. viii—339. Longmans.

Kirkes (William Senhouse) Handbook of Physiology. 6th edit. Edit. by W. Morrant Baker. With Illust. Post 8vo, pp. xv—802. Walton.

Marshall (John, F.R.S.) Outlines of Physiology, Human and Comparative. Illust. 2 vols. Post 8vo, pp. viii—1306. Longmans.

Morris (James, M.D.) Germinal Matter and the Contact Theory: an Essay on the Morbid Poisons, their Nature, Sources, Effects, Migrations, and the means of limiting their Noxious Agency. 2nd edit. Post 8vo, pp. viii—111. Churchill.

Morton (W. J. T.) Manual of Pharmacy for the Student of Veterinary Medicine; containing the Substances employed at the Royal Veterinary College. With an attempt at their Classification, and the Pharmacopœia of that Institution. 7th edit., corrected and enlarged. Fcap. 8vo, pp. xv.—568. Longmans.

Rumsey (Dr.) State Medicine in Great Britain and Ireland. An Address. Ridgway.

Sanderson (J. B.) Handbook of the Sphygmograph; being a Guide to its use in Clinical Research. Cr. 8vo. Hardwicke.

Southey (Reginald, M.D.) Tubercle, the Nature and Affinities of: being the Gulstonian Lectures, for 1867. 8vo. Longmans.

Stille (Alfred, M.D.) Epidemic Meningitis; or, Cerebro-Spinal Meningitis. 8vo, pp. 178. Philadelphia.

Tunstall (Dr. James) Bath Waters: their Uses and Effects in the Cure and Relief of various Chronic Diseases. 4th and Revised edit. Cr. 8vo, pp. 164. J. Davies (Bath)—Churchill.

Waring (E. J., M.D.) Cottage Hospitals: their Objects, Advantages, and Management.

Wark (David, M.D.) Prevention and Cure of Consumption by the Swedish Movement Cure. 12mo, pp. 56. New York.

Watson (Patrick Heron) Excision of the Knee-Joint; a Description of a New Apparatus for the After Treatment. With Illustrative Cases. 8vo, pp. 78. Maclachlan and Stewart (Edinburgh)—Hardwicke.

Wood (George B., M.D.) Treatise on Therapeutics and Pharmacology; or, Materia Medica. 2 vols. Roy. 8vo, xx—1828. Philadelphia.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper, and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

All Communications and Letters must be authenticated by the name of the writer, though not necessarily for publication.

DR. CHARLES KIDD, late of Sackville-street, London, has reverted to his attempts, by anonymously slandering, in his private capacity, the Proprietor of this Journal, to extort money, which, after the complete failure of his endeavour to recover it by law, he must be aware is due to him neither in honour nor justice. Suffice it to say that the Proprietor holds the following receipt, which he is ready to show to any gentleman who may desire to inspect it, or to produce publicly when called on, and which, as can be vouched by independent witnesses, was given by Dr. Kidd in full and entire payment of all demands, and to rid the Proprietary of any connection with him:—

Copy of Receipt.

RECEIVED of the Proprietor the sum of £3, for communications in 1866 to the MEDICAL PRESS.

CHARLES KIDD.

Sackville-street, Aug. 27.

Dr. Kidd has his proper channel for publicity through the law courts: he shall have none in our columns.

We are anxious to express our thanks for the many encouragements and suggestions we have received since our last. It is not practicable to print all the letters we receive, and some are evidently not intended for publication. The friendly hints so kindly offered will not be forgotten, the promises of support and expressions of goodwill will make us more zealous to deserve them.

Several friends mention the same points in almost identical words. Many express similar opinions in dissimilar terms. We shall only briefly refer to some of the points, and trust our friends will excuse our thus economizing space.

CUTTING THE EDGES.—This seems to have given general satisfaction.

HOSPITAL REPORTS.—We are thanked for giving full notices of the volumes of reports published by the hospitals, and asked to continue them. This we hope to do.

GLEANINGS.—This department seems to satisfy so many, that we must continue it.

REVIEWS.—We have always claimed the independence and honesty on which we are so much congratulated, and we have special arrangements to enable us to subject this department to the keenest scrutiny.

A Scotchman considers our Scotch edition rapidly progressing. We hope to surprise him by much more extensive improvements.

Three M.D.'s say the M. P. and C. is the only platform where complete independence reigns, and every fight may be fairly fought out, and where it is not the practice to burk either men or opinions.

Five friends declare that our "Articles may compare favourably not only with professional but general periodicals, are not characterized by cliquism, and certainly take broader views than those in any medical journal."

Lastly, we may thank those who promise to help all they can to extend our circulation, and once more state, that if all our friends were to do this, the profession would possess a journal equal to all its wants and worthy to represent it in the Three Kingdoms.

An old and valued Subscriber in Yorkshire is thanked for the following acceptable paragraph, which we extract from his letter of 31st ult:—

"I have always admired the just, liberal, and independent course of the PRESS AND CIRCULAR, and wish it every success."

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 15, 1868.

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ON AN ORGANIC CHANGE OF STRUCTURE OF THE HAIR, PRODUCED BY SYPHILIS.

By ERASMUS WILSON, F.R.S.

Diseases of the hair are, for the most part, nutritive; they consist in an excess or diminution of quantity; in a variation or loss of colour; in an alteration of toughness; and, less frequently, in a change of texture. The only disease heretofore reckoned as being due to an alteration of texture, is tinea or phytosis; but I propose to add another to the list—namely, one which results from an organic change in the structure of the hair proceeding from syphilis.

Constitutional debility, however induced, is apt to be followed by defluvium capillorum or trichorrhœa, frequently ending in alopecia. Trichorrhœa, consecutive to fevers and parturition, is sufficiently well-known to us; and loss of the hair is one of the usually recognised consequences of constitutional syphilis. Ordinary causes of debility generally act equally over the whole surface of the scalp; but the alopecia of syphilis commonly occurs in patches, as though following the corymbous type of distribution of the eruption on the general surface of the skin. Nevertheless, the final result is the same in both instances, the nutrition of the skin is disturbed, arrested for a while, and, the roots of the hairs, deprived of their nutritive juices, die, and then break away at their bulb, and fall out. These phenomena are the most frequently observed on the scalp, and less commonly in the whiskers and beard; and it is probable that the latter circumstance may be explained by the greater thickness of the stiff hairs, by the larger size of their bulb, and by the richer supply of blood-vessels distributed to their follicles. But these conditions, while they contribute to render the hairs more permanent, render them liable to morbid changes which have not hitherto been suspected.

A gentleman, aged 26, became the subject of syphilis for the first time in August, 1864. He describes the sore as having been slight, and healing without difficulty, with the aid of a saturnine lotion, and the internal use of iodide of potassium. Two months after this time he suffered with sore throat, of no great severity, and without any eruption on the skin. Four months later he found his hair coming off in considerable quantity, and at the end of another month, when he first consulted me, he was in a state of alopecia. At this time he exhibited symptoms of cachexia, his skin was pallid and cacotrophic, the sclerotics and conjunctivæ were pale, the tongue soft and indented, the mucous membrane of the fauces congested, and the tonsils swollen. He was a man of fair complexion and strumous habit, and the occipital and post auricular glands were enlarged from irritation, communicated by the unhealthy condition of his scalp. With the aid of alterative doses of the bichloride of mercury, in combination with the tincture of bark, and the local use of a mercurial pomade, the fall of the hair was arrested, but in consequence of his state of debility it was many months before new hair began to grow. It was at this latter period that he called my attention to the state of his whiskers and beard. The hairs had the appearance of being blackened every here and there, their normal colour being red, and upon being combed, or lightly pulled, the hairs broke off at these discoloured spots. I removed a portion of the diseased hair, and the appearances presented by it when examined with the microscope, are so remarkable, that I have thought them worthy of the attention of the profession, and now proceed to their description.

The hairs varied considerably in diameter, some were cylindrical, some flattened and twisted, some straight, others curled; and individual hairs often varied in breadth from 1-450th to 1-100th of an inch; the normal bulk ranging between 1-150th and 1-130th of an inch. Many of the hairs presented constrictions and enlargements, and at these points an organic change in the structure of the hair became manifest.

The diseased portions measured half a line to a line and a-half in length, and had the appearance of being composed of a dark cylinder enclosed in a transparent envelope, while closer examination showed that the fibrous structure of the hair was lost, and its place occupied by a dark grumous-looking substance. Moreover, the swollen or bulbous portion, was frequently split longitudinally through the centre, and exhibited an opening of considerable extent. The bulbous portion often measured 1-120th to 1-100th of an inch in diameter, while the size of the hair above and below the diseased point was 1-130th to 1-120th of an inch.

The essential peculiarity of structure of the diseased hair

was the arrest of development of the fibrous portion at its cellular stage; the dark cylinder, which forms the chief bulk of the diseased parts, being composed of large and small nucleated cells commingled with pigmentary matter, irregularly formed air-cells, and fragments of crystalline substance. The morbid structure may therefore be described as an expansion of the medulla, and, just as the medulla is the centre remainder of the hair unconverted into fibres, the morbid structure before us may be regarded as the unmetamorphosed cellular element of the hair retaining its primary cellular form. This cellular substance is continuous above and below with the medulla, and its homology of structure is very evident.

The envelope which surrounds the above described cellular structure, at first sight resembles the cuticle of the hair, and suggests the idea of an hypertrophy of the cuticle ; and the diseased hair appears to be composed of these two portions alone. But a more careful observation shows in some of the hairs a trace of fibrous structure in this situation, and leaves no doubt that the transparent envelope represents both the fibrous portion and the cuticle, the fibrous portion being sacrificed to the medullary element. Sometimes cells may be seen occupying the transparent envelope to its extreme boundary, and the surface of the cuticle is roughened here and there by a state of partial exfoliation.

The retention by the hair of its crude and early condition of a cell-structure in the morbid parts, serves to explain the brittleness of the hair, its tendency to break at these points, and the other curious process already mentioned of splitting longitudinally. I found one hair which had split up longitudinally for the greater part of its length, and the split portions were rolled up into short curls.

In conclusion, I venture to sum up the considerations suggested by the phenomena above described with the inference that the syphilitic cachexia which arrests the nutrition of the hair of the head and causes its fall, is apt, in the coarser hairs of the body, such as those of the beard, to arrest the development of the hair and cause the persistence of its early cell-structure ; moreover, that the same cachexia, which in the skin gives rise to pigmentary discolourations, also occasions deposits of pigment in the abnormal cell-structure of the hair.

REPORT ON OZONE.

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(Read at the General Session of the St. Andrews Medical Graduates' Association.)

(Continued from page 26.)

TESTS.

THERE is, up to the present time, only one recognised test for ozone—namely, the solution of iodide of potassium and starch. Owing to its power as an oxydizer, ozone acts readily on the potassium of the test compound, the potassium is thus separated from the iodine ; the iodine set free combines with the starch forming iodide of starch, giving a blue colour, which is the test. Test-papers, consequently, have been used, the papers being saturated with a solution of iodide of potassium and starch. Three forms of test-papers, thus prepared, are now in use, viz., Schönbein's, Moffat's, and Lowe's. Schönbein's papers contain ten parts of starch, and one of iodide of potassium ; Moffat's, two and a half parts of starch, and one of iodide of potassium ; and Lowe's, five parts of wheat starch and one of iodide of potassium. Lowe has also brought out another, in which, on the recommendation of the late Dr. Dundas Thompson, fifteen grains of chalk were added to each ounce of dried starch to prevent sourness ; this precaution produces great uniformity of effect. In a further research, Lowe has used what he calls "a dry powder test," using powders of wheat starch combined with iodide of potassium—one part of the iodide of potassium to five of starch being the most sensitive.

In order to detect the presence of ozone in the open air, the ozone test-papers, or the test powders, are ordinarily placed in a box, or ozone cage. The box is coloured dark within to avoid light, but air is freely admitted. This is the apparatus employed, I believe, by all the meteorologists who supply the reports to Mr. Glashier.

The amount of ozone is measured by the intensity of the colour, and is registered on Moffat's scale. There are objections to the ozone box, which objections have been well pointed out by Mr. John Smyth : this observer takes a dissimilar view to Lowe, who thinks that the velocity of air makes a distinct difference in the registration of ozone. He (Mr. Smyth) has devised an apparatus for securing greater uniformity of results ; it consists of a large aspirator, by which air is drawn with considerable velocity through a small tube so as to impinge at its opening into a tube of larger dimensions, against an extended surface of test-paper. By means of a cord connected with a clock, in which an extra weight is slung, a gasometer, which acts as the aspirator, is raised at an uniform velocity, and over which a pendulum gives complete control. A counterpoise is used to support the weight of the gasometer. Mr. Smyth shows, from a table of experiments, made with this improved ozonometer, that there is not much difference in the quantity of sensible ozone in two masses of air of equal volume, although they are moving at different velocities, in different directions, and under different hygrometrical conditions. He is further of opinion, that the ordinary test-papers do not register high enough.

Admitting, to a certain extent, the correctness of Mr. Smyth's arguments, there is a sort of fallacy in his experiment—viz., that he may be producing ozone in his apparatus, by drawing air with great velocity and much friction, through a small metallic tube.

The great objection to these tests is, that discolourations are produced by other agents than ozone, particularly by iodine, the chlorides, hydrochloric acid, nitrous and nitric acids. In the atmosphere, the last-mentioned acid, from its comparatively frequent occurrence, especially after electric storms, is a serious objection.

The late Dr. R. Dundas Thompson affirmed that even carbonic acid would affect these papers when they were very sensitive. As this latter point is of importance, I tested some highly sensitive paper with carbonic acid in its nascent form, and after it had been collected, and found that it occasioned evident change of colour.

It has occurred to my own mind that possibly a delicate test for ozone might be found, by observing the effect produced by the electric spark, when passed through rarefied ozonized air ; for this purpose, a globe, such as the one we have here, should first be filled with air that is saturated with ozone, and then be partially exhausted ; through this rarefied ozonized air, an electric spark should be passed, and the colour of the spark should be noticed and compared with the colour of the spark when passed through common rarefied air contained in the same apparatus.

But this experiment should be carried further by bringing the spectroscope into use.

As all gases are supposed to be the vapours of metals, it appears feasible that the spectrum would give a different band, or bands, with rarefied ozonized air, to those afforded by common air examined under similar circumstances and conditions.

I have not had, at present, the time or opportunity to carry out this experiment, and to report the result, but hope to be able to accomplish it before the meeting.

PHYSICAL PROPERTIES OF OZONE.

Whatever views may be entertained as to the chemical nature of ozone, it must be admitted to have certain physical properties which mark it distinctively. We have already seen, from the experiments of Soret, that it is heavier than oxygen. It is, also, quite insoluble in water; its power is intensely increased, so that air saturated with

it destroys dead organic matters with great rapidity. Thick india-rubber tubing is quickly eaten through by it, and ammoniacal products are speedily decomposed. In contact with ammonia, as Dr. Wood first pointed out, it forms white fumes like white fumes of chloride of ammonium, as though it combined with ammonium, as chlorine does, producing a specific compound, or salt, an ozonide of ammonium. We have proved, further, that it possesses a peculiar odour, thus, in relation to weight, diffusion, chemical action, and smell, it is, at all events, a distinct body, nor can, I think, its individuality be doubted by any, until these physical characteristics are explained away.

PHYSIOLOGICAL ACTION.

The physiological action of ozone has been studied by many observers, and with singular uniformity of results. It has been tested in regard to its effects on living animals, on dead tissues, on blood, on various secretions, and on various excretions, compound and simple. Let us first take under review the action of ozone on living animals.

If a warm blooded animal be placed in a glass chamber and be subjected to a stream of ozonized air, the oxygen of that air having been ozonized to the 12th part, and the influence of carbonic acid being entirely excluded, peculiar physiological phenomena are quickly displayed. The first sign is an irritability of the mucous surface of the nostrils, and of the conjunctivæ. There is often free secretion of saliva, and even profuse sweating in those animals that exhibit sweating; there is also thirst and dryness of the tongue and nostrils. These symptoms are succeeded by great rapidity of respiration, and soon by intense action of the heart. When the chest is auscultated in this stage, there is always dry-bronchial breathing, and a whistling sound as in the first or preliminary stage of acute bronchitis in the human subject. The effect of the ozone being sustained, cough manifests itself, followed by secretion of frothy fluid from the bronchial surface; this is equivalent to the congestive stage of bronchitis: finally, there is lividity of the skin of the nose, of the nostrils, and of the lips; great coldness of surface, gasping respiration, jactitation, and death, the death being often sudden. This may be said to resemble, most perfectly, the exudative stage of bronchitis. This order of symptoms or phenomena, as they, perhaps, had better be called, has been recognised by all experimentalists; it has been pointed out with particular care by our President, and my own experiments have been attended with corresponding results. There is, however, a remarkable difference in the periods of the phenomena observed in different animals, their order, nevertheless, being maintained in each case in which they are manifested. Guineapigs are peculiarly susceptible of the influence of ozone; these animals die in an atmosphere saturated with ozone, usually in about an hour, or an hour and a quarter, presenting, with much exactitude, the order of symptoms I have detailed above. Rabbits live longer than guineapigs, exhaling water from the lungs much more freely, and also micturating with greater freedom. Rats die with great rapidity. Mice display a greater tolerance. Pigeons resist the effects of ozone much longer than guineapigs, and may readily be taken out of the chamber in which they have been confined with guineapigs, apparently but little inconvenience at the period when the guineapigs are dead. If, when just removed, the chest is auscultated, the breathing, however, is found to be peculiarly sharp, dry, and cooing; the action of the heart being amazingly rapid, reaching even 240 beats in the minute, and the respirations from 90 to 100 in the same time. Pigeons, removed altogether from the ozone, when in this condition, will frequently exhibit the third stage of obstruction to respiration, and die. Frogs seem to have the power of resisting the action of ozone permanently, if they are allowed free access to water.

The animals on which I experimented were confined in this chamber.

MORBID PHENOMENA.

After death from ozone, the morbid appearances are principally confined to the respiratory passages. If an animal be killed during the first stage, the bronchial membrane is found to be dry, deeply congested at spots, the lung structure being ecchymosed, and both sides of the heart full of blood. In the second stage the whole lung is congested, the bronchial surface being red, the right side of the heart engorged, the left side empty. In the third stage the lungs are also intensely engorged, the bronchia surface paler, and filled with frothy fluid—the right side of the heart full—the left side empty. In cases where animals are removed from the chamber at the beginning of the second stage, and, after some exposure to the air, subsequently die, the morbid anatomy is rather that of pneumonia than bronchitis: in one experiment that I performed, the stage of hepatization was so distinctly marked that I could not have distinguished it, by the lung itself, from the hepatization of lung in the human subject after pneumonia.

It is worthy of remark that very young, or very feeble, or very old animals suffer much more readily from bronchitis, produced by breathing ozone, and succumb much more easily to its effects, than do full grown vigorous animals.

If animals die in the earlier stages of the disease produced, and especially if they die suddenly in such stages, the blood is found firmly coagulated in the heart, however quickly the body may be opened after death, but fibrinous separation appears never to have been discovered, the time for such separation to have taken place, having been evidently too short. Cadaveric rigidity is, also, in these cases, quickly developed; but, when the symptoms run on to the stage of lividity, the blood will remain fluid for several minutes after death, and the absence of rigidity of the muscles is proportionally prolonged.

THE ACTION OF OZONE ON ORGANIC COMPOUNDS.

Whilst the effects produced by ozone on numerous organic compounds has been found, by a large body of experimentalists, to be tolerably uniform, the explanations given as to the cause or causes in operation for producing such effects have been, in many instances, very different; but this is not more than would naturally be expected to be the case, when it is remembered that, up to the present time, so many theories have been promulgated and supported as to the true nature of this body.

Blood absorbs ozone with great rapidity, and oxygen is freely liberated. This capability of liberating oxygen has been said to reside principally in the red globules, from the circumstance that, when freed from fibrine and albumen, these bodies produce this identical effect. Further, when ozone is passed through freshly drawn blood, the red corpuscles lose their colour, and, in the process, are destroyed. M. Schönbein adduces, as an additional proof, the circumstance that such decolourised blood is no longer capable of producing the characteristic blue colour with the tincture of guaiacum.

Ozone passed through putrid blood destroys the putrescent odour, and restores coagulation. The long-continued action of ozone on albumen gives rise to the appearance of flocculi resembling fibrine, and Mr. Smee, Junr., believes these to be fibrine, but as they are not soluble in nitric acid, this point appears to be, to say the least, doubtful. M. Gorup-Besaner considers that the change undergone by albumen under the influence of ozone is, in many respects, similar to that caused by pepsine.

Upon urea ozone produces no greater oxidizing effect than any other oxidizing agent.

Ozone produces a rapid action on uric acid, causing it to be soluble in water, which water, upon being slowly evaporated, yields yellow prismatic crystals strongly resembling allantoin, and by a further evaporation of the water from which these crystals are obtained, a somewhat considerable quantity of urea may be procured.

On allantoin, alloxan, and creatin, ozone does not act at all, and upon leucin very slightly, if at all.

Ozone produces creatin from creatinin, and converts the solution from an alkaline into an acid one.

On casein, ozone produces a powerful effect, converting it, at one stage of the experiment, into a substance very like albumen, but a more continued action of the ozone occasions the formation of flocculi in every way resembling those produced by the action on albumen: when a stream of ozone has been passed for some time through milk it will, if kept for a few hours, lose its casein, whilst the fatty particle of the milk will remain in an unaltered state for a very lengthened period.

Neither fibrine nor bone-gelatin are at all acted upon by ozone.

If ozone be passed through bile, containing all its natural ingredients, it is very soon decolourised, but if it be freed from colouring matter, mucus and fat, no effect is produced on it.

Inosite and hippuric acid are not acted upon at all by it.

Whilst some chemists ascribe the various effects produced by ozone on organic compounds to an oxidizing process; others, on the contrary, attribute them all to the production of mere decomposition.

RELATION OF THE FACTS CONNECTED WITH THE OBSERVED MORBID PHENOMENA TO CERTAIN DISEASES IN MAN.

Amongst the several, indeed numerous, surmises as to the relationship of ozone to many diseases in the human subject, we have only one series of basic facts on which to ground any safe inference, these facts are, that the inhalation of ozone by inferior animals produces symptoms analogous, if not identical, to the symptoms of catarrh, bronchitis, and even pneumonia in the human subject, hence it might be inferred that the same agent, present in the atmosphere in excess, would light up those diseases. The great question then arises, whether there ever is such an excess of ozone in the air as would be likely to create such a result. If such were the case it would follow that man is more susceptible to the effects of ozone than the rest of the animal creation, otherwise, epidemics of these diseases, originating from the common cause, should infect the inferior part of the creation *at the same time* that it affects men, which connection of disease is certainly not yet proved, and to establish which there is no sufficient evidence. Again, there is no satisfactory proof that men are more susceptible to the effects of ozone than inferior animals; for in the laboratory, and during experiment, although irritation and pain in the head may be occasioned, and many symptoms like nasal catarrh occur; yet, for such an effect there must be with the man as with the animal, an excess of ozone quite appreciable to the ordinary senses.

When to the above facts we add the great difficulty of determining the actual existence of ozone in ordinary atmospheric air, we must hesitate to accept any sweeping conclusion in regard to ozone being a natural cause of disease. There is, moreover, this important fact to bear in mind, that taking animals of the same species and subjecting them to the same ozonic conditions, they suffer the same symptoms, although not in each case in the same degree perhaps. This rule should logically follow, although not necessarily to the same extent in regard to the human family, if it, in sections or masses, were subjected to the influence of the same universal agent, which is not the fact. To put forward an analogy:—if in the air under the influence of storm, or aught else, some subtle body, such as chloroform, could become equally diffused, in quantity sufficient to influence one individual by narcotism, it will not be disputed that all other individuals breathing the same air, would exhibit more or less the symptom, of narcotism. What, then, is the difference, if there be a difference? The difference must lie in what may be called individual power of tolerance of an active physical agent—a tolerance not even marked, in the same individual, at all times.

I put forward these objections not with the mere object of rebutting theory, but with a desire to enforce a more direct proof of theories plausible on their surface, but unquestionably open to serious objection.

Another view also presents itself to the mind, it is this—if ozone really causes disease, it is quite certain that the tests we have are altogether inefficient to record its presence when it *is* producing disease; or, there is some other agency at work which interferes with the physical facts without interfering with the determinate physical action.

I think it is possible that in studying ozone, admitting all the difficulties, and determined to trace out the rigid truth, we may, in time, discover a connection between the presence of ozone in the air and catarrhal and bronchial epidemics, but further than this I cannot concede the point, nor admit the smallest opening towards an argument tracing any other class of diseases to atmospheric ozone as their cause.

Finally, it has to be considered whether in regard to epidemics specially attributed to ozone—I mean catarrh's, bronchitis, and the like—there are not other perfectly efficient causes at work to excite these maladies independently of ozone.

The recent report of the Registrar-General shows so definitely the influence produced by simple variations of temperature in this respect, that, really, in ignoring these variations, to look for more obscure causes, seems like going from the real and ascertained to the problematical, without any other reason than love of novelty.

CONCLUSION.

1. The history of ozone through all the steps that have led to its discovery, is singularly interesting and beautiful. The discovery, throughout, has been conducted purely on the constructive or synthetic method, and, in all its early stages, has been the result of simple observation apart from theory. Progress, in regard to it, has thus been made by long but even steps, each independent observation being confirmatory of what has passed before, and tending, ultimately, to the same end.

2. There can be no escaping, at this moment, from the theory that ozone is a modified condition of oxygen, indeed, is oxygen plus force, which force is probably used in condensation—in other words, the power or capability of oxygen to combine with itself.

3. The artificial production of ozone, and the quantity that can be produced; or, rather, the quantity of oxygen that can be transformed into ozone is most clearly and distinctly defined; in fact, in the laboratory, the production is an absolute verity as pure as the production of oxygen or chlorine. For the production of ozone in the laboratory, no method is so good as that accomplished by the aid of the induction coil. The production of ozone in the air, if it be there, is not yet in any way definitely understood.

4. The ordinary tests for ozone are imperfect, not because they will not prove the presence of ozone, but because they prove too much—that is to say, the presence of other bodies also common to the atmosphere.

5. In its action on the body the effects of ozone seem to be confined to the respiratory passages and structures, in fact, it is purely local in its action, resembling closely diluted chlorine and diluted bromine in vapour, the phenomena induced, varying in intensity, may be catarrhal, bronchial, or pneumonic, nor is there any evidence of any other class of diseases from ozone.

6. Ozone administered so as to produce death, promotes conditions clearly indicative, as I have already stated, of local action confined to the pulmonary system. The conditions are those of oppressed secretion, vascular congestion and exudation.

7. The relation of ozone to disease, if there be such a relationship, is confined to disease local in its character, and to one part of the system—the respiratory. Beyond this there is no logical argument whatever, and even this must be accepted as problematical until other potent influences are estimated as causes on the principle of exclusion.

8. On dead matter, ozone exerts a powerfully-destructive action, resembling in this way chlorine, iodine, and especially bromine.

9. Ozone is a disinfectant and deodoriser belonging to those bodies which disinfect and deodorise by resolving and decomposing into primitive and innocuous forms, competing in this respect with substances already named—*i.e.*, chlorine, bromine, and iodine. It possesses these qualities in a less degree than chlorine and bromine, and is, in many cases, not so applicable as iodine.

10. As a preventive of disease, ozone can only act by destroying organic animal poisons, in which respect it may be compared with the substances I have more than once named. With regard to the disinfecting and deodorising powers of ozone, I would refer you to the opinions of the late Dr. Barker, contained in the Hasting prize essay for 1865. The subject of comparison, and indeed the whole subject of deodorising and disinfecting, is there so admirably, so exhaustively discussed, as to leave, it seems to me, nothing further to be said on the subject.

11. Lastly, as a remedy. In the form of ozonised oil, of ozonised ether, and ozonised water, it once more ranks with a similar combination of remedies, containing chlorine, bromine, and especially iodine. Whether, in any respect, it may prove to have greater advantages than the last named trusty and ready agent, can only be conclusively arrived at by determining whether it will do what iodine will *not* do, and this can only be decisively made out by applying to it the test of inductive philosophy—a rigid exclusion of all that is ineffective.

And now, Mr. President, I must bring this imperfect report to an end, and, in doing so, I think it will be impossible for me to do better than by taking, for its final part, a few lines from the preface of a much more ambitious, and far more deserving work. The lines are these:—

"If this publication be only the more solemn funeral of my remains, I wish it may be known that I die in charity and in my senses, without any murmurs against the justice of this age, or any mad appeals to posterity. I declare I shall think the world in the right, and quietly submit to every truth which time shall discover to the prejudice of these writings, not so much as wishing so irrational a thing as that anybody should be deceived merely from my credit."

THE GERMS OF CHOLERA AND THE MEANS OF THEIR DESTRUCTION.

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In my last communication on the cholera poison, it was shown that both analogy and direct observation tend to establish the correctness of the theory which alleges that this poison is an organized material of animal or vegetable origin. The object of this paper is to enquire whether the poison obeys the same laws which govern other germs possessing life, especially whether those influences which destroy the latter destroy also the former. If we can come to a definite conclusion, that conclusion must have a two-fold value, for it will not only establish the truth of the theory, but it will be a most important guide to practice.

In this enquiry we have to consider the agents which destroy the vitality of the lowest forms of organized (animal or vegetable) life; to investigate the mode in which they accomplish such destruction; to determine whether such agents can be employed within the living body, as well as externally to it, and to apply the practical test of experience whether a therapeutic treatment founded on deductions from the foregoing observations can be, and has been successful.

If it be granted, as, indeed, the science of the present day compels, that certain diseases originate from organized germs, how may these germs be destroyed? When such germs affect the exterior of the body, it is obvious that they may be removed by physical, as well as destroyed by chemical means. Thus, pediculi and their ova are removed from the skin or the hair, or vegetable growths are taken away with the hair-roots by epilation, or the foul crust of an ulcer is lifted from its surface. By indirectly physical means, also, organized bodies are expelled the alimentary canal, as parasites and their ova, by the action of purgatives. Methods of destroying organized particles on the surface of the body have been used since the earliest days of medicine, though the *rationale* of the process has not been well understood. What was the operation of the actual cautery but the oxidation of irritating animal compounds? What was its use when applied to wounds produced by the bites of rabid animals, or by the virus of snakes, &c., but a method of employing an oxidizing disinfectant? It is needless to state that chemical caustics also have been employed from the earliest times. It was known that they destroyed a virus which might otherwise be absorbed into the system, or that they made the surface of a wound more healthy in appearance, but the reason why was almost unknown. It is now understood that the metallic salts which we use as caustics unite chemically with the organic and organized materials with which they come in contact; that they alter the chemical constitution of the one, and disorganize (by a chemical change) the other. Pasteur showed that the air is full of septic germs. On the surface of an ulcer these germs find a soil suitable for their growth and propagation. According to Lemaire pus itself is a product of the growth of organized particles in pus or mucus. A metallic salt like nitrate of silver unites chemically with these matters with which it comes in contact. It thus not only arrests the vitality of these living particles, but it changes the albuminous material in which they exist, and renders it a soil unsuitable for their growth. For the attainment of a similar end, other substances besides metallic salts have been used. Lotions of sulphurous acid or of permanganate of potash have been employed in cases of external parasite formations. The avowed object of these applications has been the killing of the organized structures, causing the ostensible phenomena of the disease. Lastly, in addition to many other means of the same kind, carbolic acid has been used by Lemaire, Déclat, Crookes, Lister, Simpson, and others, with distinguished success. To continue the method of argument which I adopted in the former communication, I will enunciate the following as—

Proposition A.—That the germs of zymotic diseases are destroyed by disinfectants and antiseptics.

Processes of fumigation for the disinfection of dwellings, are known to be of the remotest antiquity. They formed part of the duty of the priests under the Levitical law. Burning sulphur, according to Ovid, was used by Roman shepherds to purify their herds and flocks. Wherever the contagiousness of disease was recognized, some measures for purification and disinfection were usually popularly adopted. Until quite lately, chloride of lime was almost universally employed in localities affected with transmissible disease. The object of all such processes was the destruction of the *materies morbi*. The mode in which they accomplished this destruction has been, until lately, imperfectly understood. Agents for the destruction of infectious disease, producing particles, may be arranged under three divisions: —1. Those agents which alter the chemical constitution of the *materies morbi*. 2. Those which have a double action, altering the chemical constitution, and specifically arresting the vitality of infecting particles. 3. Those agents which, though exerting no chemical influence, yet have the power of killing the germs.

I.—Of the first class, essentially chemical disinfectants, the usual mode of action is oxidation. They exert more power of deodorization than the other classes, because they change the nature of the gaseous products of putrefaction. Of this class the most powerful and practicable agent is chlorine. Chlorine, in the presence of organic matter, combines with hydrogen, liberating oxygen.

The metallic salts come under this class, the most useful oxidizing agent among them being permanganate of potash or soda (Condy's fluid.)

II.—The second class of disinfectants comprises those

which affect morbid germs both chemically and vitally. Sulphurous acid is a type of this class. It alters the chemical constitution of organic bodies by deoxidizing them, but it has an action over and above its chemical action in destroying the life of organic particles. If its power of checking organic change depended only on its deoxidizing or other chemical properties, its value would be limited on account of the large quantity which would be necessary to effect the necessary chemical decomposition; but it is not so, for it has, besides, a special power. "No agent," says Professor Graham, "checks so effectually the first development of animal and vegetable life." The occurrence of fermentation, according to Professor Miller,[1] is prevented "by solutions containing *traces* of sulphurous acid or the sulphites." Mr. Crookes states, in his admirable report to the Cattle Plague Commissioners, "Sulphurous acid acts in many cases through its affinity for oxygen, but it possesses also great antiseptic powers of its own, so that a slight exposure to it is sufficient to destroy the vitality of germs." It is evident, therefore, that sulphurous acid and the sulphites have a twofold action on organic and organized matter.

III.—Bodies of this class act alone on the organized material; they induce no chemical change, but they *kill* the lowest forms of animal and vegetable life. Such a body is carbolic acid. Though this substance is of comparatively recent introduction, compounds containing it have been used from time immemorial. Pitch, tar, and gum resins were used as fumigations in the early ages. Mr. Crookes' carefully-contrived experiments on carbolic acid have shown that it exerts upon organic matter no chemical influence whatever, and neither promotes nor retards any purely chemical change; "but it has a special action on the fermentation induced by organized matter; it not only arrests it instantly when in progress, but it prevents the development of future fermentation." The mode in which it accomplishes this is by attacking vitality. "It may be considered as definitely proved that the vapour of carbolic acid in the atmosphere exerts a special selective power on all minute organisms possessing life."[2] Although its action is catalytic and not chemical, carbolic acid appears, from the results of recent research, to be the most energetic of all disinfectants. Lemaire showed that very small proportions of carbolic acid were sufficient to destroy the effects of myriads of organized particles. Crookes showed that a solution containing one per cent. of carbolic acid at once arrested the vitality of yeast, and though the yeast was afterwards washed with water, it could not be made to re-excite fermentation. It has been used as a disinfectant in nearly all zymotic diseases, including the cattle plague, as well as in cases of pus formation and unhealthy inflammation of almost every class occurring on the surface of the body. For further information on this point I must refer to Lemaire's book[3], and to the recent writings of Lister[4] and Sir J. Simpson[5].

Whatever be the disinfectant chosen, I think that it is scarcely possible that a doubt can arise as to the efficacy of the practice of disinfection. Overwhelming evidence has shown zymotic disease to be the result of the operation of organized poisons, and the practical experience of thousands has indicated that the spread of disease can be checked by measures of disinfection. We come now to

Proposition B.—That the germs of cholera are destroyed by disinfectants and antiseptics.

If we have shown with great probability already that cholera is the result of the actions of an organized germ upon the body—if we agree that the action of antiseptics &c., is to destroy organized germs, and if we find that antiseptics, &c., have checked the progress of cholera, it is surely fair to infer that antiseptics, &c., act in such a case *by* the destruction of germs. Conversely, if we agree upon the usefulness of antiseptic measures, we are constrained to admit that cholera has for its cause an organized poison. Of the efficacy of disinfecting measures in arresting the spread of cholera, I consider that the history of late epidemics has given us many proofs. The Health Report of the Medical Officer of the Privy Council (which will become a classic on the subject of cholera), contains a vast amount of evidence tending to show the value of systematic measures of disinfection during an outbreak of cholera.

"Too much importance," says Mr. Simon, "cannot be attached to the duty of thoroughly disinfecting without delay, with chloride of lime or otherwise, all discharges from the stomach and bowels of persons under the epidemic influence, as well as all bedding, clothing, towels, and the like, which such discharges may have imbued."[1] Mr. Simon gives an admirable general memorandum on disinfection, recommending, as the agents which most commonly prove useful, quicklime, chloride of lime, carbolic acid, sulphate of iron, perchloride of iron, and chloride of manganese. In Dr. Buchanan's report of the outbreak in Southampton, it is stated that, on an average, twenty gallons of carbolic acid, and 30lbs. of chloride of lime were used daily for the purposes of disinfection. Similar disinfecting measures were adopted in every metropolitan district. It is clear, therefore, that the value of the process of disinfection must have forced itself upon the minds of a large number of those whose duty it is to guard the public health; and it is certain that a very large amount of public money was spent in disinfectants, and the mechanism of their employment. Now the very application of the process of disinfection necessarily presupposes that cholera is a zymotic disease—a disease propagated by organized particles, which it is the function of disinfectants to arrest or destroy. We are, therefore, in this dilemma—either we must agree that cholera is caused by a transmissible organic poison, or there has been a most fearful waste of public money, as well as an unfortunate misapplication of the brains of learned men. There can be little doubt, I think, as to which conclusion we shall come to. Having investigated the operation of disinfecting agents outside the body, we arrive now at

Proposition C.—That the germs of zymotic diseases are capable of destruction within the living body.

If we look over the list of those substances which have powers of disinfection, we see many which have been used in zymotic disease without an idea being entertained as to their possible influence upon the germs of disease—such are chlorate of potash, and the chlorine compounds which have been used in diphtheria, or perchloride of iron in scarlatina, and mercury compounds in the various instances of morbid infection. The very astringents also which have been used in diarrhœa, *à fortiori*, tannic and gallic acids, act as powerful deoxidizing agents.

In the majority of zymotic diseases the morbid poison must exist in the blood; therefore it is necessary that the agent which shall destroy the poison shall also be capable of absorption into the blood. Of the agents which I have mentioned as capable of destroying organized particles *outside* the living body a very large proportion is capable of absorption into the blood. The question then occurs—Which is the most practicable agent to employ, as easily absorbed, as efficacious in its action on the poison, and as leaving uninjured the circulating blood? The answer which I have formerly given to this question has been, the sulphites.

But here comes the objection of the writer of "Cholera Theories"—"Here we beg to remind him (myself), that had he followed the most recent investigations on this subject, he would probably have accepted the conclusion that the sulphites would destroy the vitality of a patient's blood more readily than germs such as those, to the presence of which he ascribes the phenomena of cholera."[2] Now the most recent record of investigations which I have seen, a paper by Dr. John Polli, of Milan, in the *British*

1 Elements of Chemistry. Part III., page 104.
2 Report to her Majesty's Commissioners.
3 De L'Acide Phénique. Paris, 1863.
4 *Lancet*, September 21st, 1867.
5 *Lancet*, November 2nd, 1867.

1 Ninth Report of Medical Officer of Privy Council, p. 232.
2 Medical Press and Circular, September 4, 1867, p. 228.

Medical Journal, for November 16th, 1867, proves the exact converse of the startling statement of my critic. Indeed, I am perfectly at a loss to conjecture what investigations ever undertaken prove, or seem to prove, his hypothesis. It is possible that he may have derived his opinion from a statement, not an investigation, by Prof. Claude Bernard, who says—"We cannot neutralize these ferments in the living organism, it is impossible, because to effect such a purpose, it would be necessary to interfere with the character of the blood to such an extent, that it would be no longer capable of maintaining life." Here it is to be observed, first, that Bernard, unlike the reviewer in Cholera Theories, embraces the zymotic theory *in toto*. He readily admits the existence in the blood of morbid germs, but denies our power of killing them without our also deteriorating the blood. And what is his reason? No doubt he thought when he penned the foregoing sentence that a neutralizing agent would act by chemical means. Now, I readily admit that if sulphurous acid or the sulphites acted merely as deoxidizing agents, to neutralize the ferment it would be necessary gravely to interfere with the character of the blood. But I have said that these agents do not solely or chiefly act by virtue of their chemical power. They act by arresting the vitality of the lowest forms of organized particles, such as zymotic poisons have, in my former paper, been proved to be.

The *à priori* objection is, therefore, disposed of. It is no more impossible to destroy the germs of disease without impairing the vital properties of the blood, than it is to destroy an entozoon without impairing the organic structures of the higher organism which contains it.

(To be continued).

Lecture.

CLINICAL LECTURE,

DELIVERED IN THE

NORTH CHARITABLE INFIRMARY AND CITY OF CORK GENERAL HOSPITAL.

By Mr. SHINKWIN,

JUNIOR SURGEON TO THE HOSPITAL AND DEMONSTRATOR OF ANATOMY QUEEN'S COLLEGE, CORK.

GENTLEMEN,—Prostatic disease is, as you are aware, peculiar to old age, and the patient who suffered from it in my ward was, in the most remarkable manner, the very picture of the class that Brodie so faithfully and truthfully describes, in his lectures on "Enlargement of the Prostate Gland." His hair was grey and scanty, the white zone was beginning to show itself around the cornea, the body was wasted, the skin dry and parched, the countenance expressive of that peculiar anxious look so characteristic of suffering from urinary disturbance, and when he walked across the ward, you might see that he did so with the body bent slightly forwards, and that the hands supported the genitals, in fact, the whole man showed but too plainly that the frame which had once been strong and vigorous, had now nearly approached that period of life, when he should soon shuffle off the scene and leave others to fill the place he was at present occupying.

On referring to the notes of his case, I find that Murphy was aged 60, and that he had been suffering from retention of urine, fully a week before admission. On inquiring more fully into his case, we find he has never had an attack of gonorrhœa, and that this is the second time he has had stoppage of water, the last being about 8 months ago. At that time a catheter was used three or four times, and after that he was able to pass water by himself, but in a much smaller stream than before.

Dr. O'Sullivan saw him on admission, and found the bladder greatly distended; after some little difficulty he passed a No. 8, gum elastic catheter, and drew off a large quantity of water. The next morning you saw me perform the same operation, and relieve the man's bladder of a good supply of urine, and you might have perceived that I did not require to use any pressure to induce the water to pass through the instrument, thereby showing that the muscular fibres of the bladder were not the cause of the retention, but that some mechanical obstruction stopped the urethral passage.

The report, after being seven days in hospital, is:—Catheter used morning and evening; patient unable to relieve himself. Just at this time I happened to be in consultation with one of our most eminent surgeons, on a case exactly similar to Murphy's, and I thought it my duty to give him the benefit of the advice. This surgeon strongly advocated the use of opiate enemata or suppositories, and, as you may remember, we tried the enemas in this man's case; well, what did they effect? I directed the nurse to give him a tinct. opii. and starch enema, a drachm to two ounces, and the report after its administration is, "no improvement in passing water; urine highly acid." He was also ordered a warm bath, and as the urine was highly acid, he got a mixture of liquor potassæ, bicarbonate of potassæ, and bicarbonate of soda, and to have the enema repeated.

After the administration of the second enema, he had no pain, even with the bladder fully distended, but, with all that, the expulsive power remained the same as before, so, of course, we had to use the catheter; but this much I must say, it entered the bladder more freely than before we used the opiate enemas. On the 12th November, 13 days in hospital, the report is—"Has not required the catheter for the past three days." I should here mention that for the last five days he has been taking bromide of potassium in five grain doses three times a-day. But the result shows how cautious we ought to be in letting our hopes deceive us, as to any permanent benefit accruing to our patient, from any of the plans of treatment we have just now enumerated, for the day after the report is—"About twelve o'clock yesterday, Murphy complained of intense pain in the perineum, and a burning desire to pass water." The catheter was passed easily first, then with some little difficulty, then at the third time with greater difficulty, and on the water flowing at this introduction, it was highly tinged with blood.

On seeing this state of affairs, I did not wish to use the silver instrument, but tried the gum elastic of the same number. It passed easily until it arrived at prostatic portion of urethra; when there it stopped, and no inducement of mine could possibly get it further, but on it should go (as the man's bladder was full of urine), either through the prostate or in the course of the urethra; preferring to guide it, if possible, through the latter, I passed the index finger of left hand into rectum, and found lying on it an enormously enlarged prostate. With some little difficulty the point of the catheter was slipped over it, and the instrument glided safely into the bladder, and the water was permitted to flow off.

On my withdrawing the catheter, what a picture of pain and suffering poor Murphy presented. He was actually bent double, not, as he said, with acute pain, but with the most awful burning sensation in the perineum. It was so intense that he could neither content himself in or out of bed. And now, for the first time, I noticed that the drops of urine in the catheter were tinged with blood.

This was, indeed, a sad state of affairs. Some of the symptoms may have been accounted for by the idea that, there was an abscess of the prostate gland, but from the notes of the case up to this period, there was nothing to warrant us thinking so. I do not think myself there was, though others who saw the case appeared to imagine that, there was a collection of matter in the gland. The probability is, that when the instrument was being used a second time and not found to go in easily, that a little more force than requisite was applied, and that in this way some of the mucous lining of the canal was ruptured, which, of course, laid bare the parts to the action of the urine. This, I think, I

am borne out in supposing, as there was no pain whilst the catheter was being introduced, or whilst the urine was flowing through it; but on the withdrawal of the instrument, when the protecting power of the catheter was gone, and when the last drops of the water came into contact with the passage, it was only then, and not until then, that the patient complained of the irritation. I thought, if he allowed the catheter to remain in the bladder, it would be of some service to him, but he would not consent to do so.

He was immediately ordered a very warm hip-bath, and a mixture of tinct. opium and liquor potassæ. On the 16th, that is his seventeenth day in hospital, the report is, "after drawing off the water to-day, it was noticed, for the first time, to be quite cloudy—and, on being tested for pus with liquor potass., a large quantity seemed to be present. He now has no pain in urethra, and says he thinks he is getting well." We stopped all medicine, and the last report of his case is dated the 20th, twenty-one days in Hospital:—"Passes water perfectly, very little pain; he left hospital of his own accord, as he wished to be at work.

Had we an hospital full of prostatic disease, I could not have shown you a more perfect case than that of Murphy's. He was a type of this class of case, and the reason that I direct your attention to it so closely is, that when you are hospital-surgeons yourselves, such cases will frequently come under your notice; indeed, not only in hospital but in private practice, such cases are constantly under treatment.

Let us ask ourselves the question, what hindered that man from passing water when his bladder was full to overflowing? It was not want of power in the bladder, for, the moment the instrument was introduced, you saw how freely the urine flowed off without any pressure whatsoever on the abdomen. It was not stricture (so called), for you saw me, and you heard that Dr. O'Sullivan passed a No. 8 instrument without the slightest difficulty. What then hindered the patient passing water, when he willed it, and when the muscular fibres of the bladder were sufficiently strong to eject the urine through the silver or gum-elastic tube? Obstruction to the water there was—but where? The obstruction was evidently in that portion of the urethra surrounded by the prostate gland. If you read up the authorities on this subject, you will be told, the third or middle lobe of the prostate, when enlarged, is the chief cause of inability to pass water; such is certainly, in a great measure, the case; but, I think, the lateral lobes, when increased, in size, have just as much to do with the retention as the middle one, and far more frequently prevent us from passing a catheter than might be at first imagined; the middle lobe merely elongating that portion of the canal that it surrounds, and slightly flattening it, whilst the lateral lobes by becoming of unequal size, push the canal out of its natural course, and, in this way, produce obstruction to the entrance of the instrument. If the middle lobe were the only one enlarged, there would, in my mind, be little or no difficulty in passing an instrument, as the obstacle would be pushed out of the way as the instrument passed on. This would occur even where, as I have seen it as large as a small orange; but when we find, as in the case before us, that the catheter passes up to a certain point, and then sticks there, rest assured one of two conditions are present—the mucous membrane of the urethra has become very much inflamed, or, one of the lateral lobes has become so enlarged as to push the canal more to one side than the other. When such a state of things does occur pass your finger into the rectum; by doing so, you straighten the passage, you tilt the point of the catheter in the proper direction, and you save your patient. Woe betide you, if in such a case you use any undue force; many a poor unfortunate has to curse the day he permitted an unskilled hand to use a "Prostatic Catheter," the most delicate manipulation, the most exquisite sensitiveness, between the operated on and the operator, is required in such cases; in fact, an almost magnetic influence, to know when to stop, and when to persevere with anything like pressure on the parts. Believe me, gentlemen, such is not learned in a day. It is only by long and careful practice that such knowledge can be acquired. One man has passed an instrument where others have failed, but oftentimes the post-mortem room has revealed destruction to the most sensitive portion of the human frame, and that by using undue violence. Let me impress upon you this maxim, never use force in passing either a bougie or catheter, sooner make your patient submit to an operation, than that he should linger out a few weeks with a false passage.

Never try to deceive a patient with prostatic disease. Tell him honestly and candidly, that you will be able, in a great measure, to alleviate his sufferings, but you might as well hold out hopes to him of making his grey locks black, or restoring to him the keen eyesight of his youth, as of curing him of enlarged prostate. The gland is a purely mechanical obstruction, it is the flood-gate at the mouth of the canal, it must be opened to let the waters pass—it is not stricture—that is, it is not muscular contraction. It is the pressure of a body under and around the canal, which body must be pushed aside, and the only way you can accomplish this, is by using a full-sized catheter, either gum-elastic or silver; I generally use one such as this in my hand. You may perceive it is longer than the ordinary ones, and more curved; if it were not so, it would come in direct contact with the obstacle we want to push out of the way.

You may here ask me, and very fairly, why not use a gum-elastic instrument? My experience tells me (though I know it differs from some high authorities), that a silver instrument, such as this, can be used far easier than an elastic one. I have found it in some cases utterly impossible to introduce an elastic, but this curve of instrument, named by a gentleman I used to attend "The Infallible," never failed me in the hour of need. I grant you the gum-elastic has the advantage over the silver when required to be retained in the bladder, but I doubt very much whether such practice is advisable, at least for any length of time. Surely the coats of the bladder are irritated enough by the pressure of the tumour, and this irritation should not be increased even by the use of the flexible catheter, used by Thompson, more especially in a patient where there is only chronic, not acute enlargement of the gland. If the patient can pass no water for weeks together, then, indeed, Sir Henry's flexible tube will be a blessing to the sufferer, and a boon to the surgeon; but the generality of these cases occur in old gentlemen who, after sitting at a dinner party, leave a hot room, full of wine and punch—the gland becomes engorged, and retention is the result; or a far more frequent cause is, if the old gentleman has been spending his evening, after the dinner party, in some fascinating female society (for these old chaps are generally bachelors,) and when he goes home, he begins thinking of sweet smiles and the silvery voices of his late companions, this, and other causes, result in an engorgement of the part, and retention of urine follows. What is to be done? Relieve your patient as quickly as possible; if he consents to it, leave the catheter in the urethra for two or three hours, not longer, but surely in such a case you would not condemn your patient to wear a long tube, day after day, dangling from his penis. I for one would much prefer using the catheter daily for him, until all spasm had subsided, and, by doing so, you may rest satisfied that all would be done for your patient that could be done; that you had exercised in his favour all your skill, and that you have, to the best of your abilities, tried to make his sufferings as endurable as is possible within the art of surgery.

PRIZES FOR 1869 OFFERED BY THE ACADEMY OF MEDICINE OF PARIS.—1. On the Diseases of the Cerebellum, £40. 2. On Sclerosis in the Different Organs, £24. 3. Clinical History of Insanity with Fancied High Rank, especially in a Therapeutical point of view, £40. 4. On the Return of the Uterus to the ordinary state after confinement, with medico-legal deductions as to the time since which a woman has been delivered.

Hospital Reports.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Dr. FLEMING'S Surgical Clinique.

IV.—HERNIA AND HYDROCELE—DISTRIBUTION OF TRUSSES.

Dr. Fleming brought under notice of his class the several cases of application for trusses at the last monthly distribution. (January 6th.) The number was 26.

Two occurred in females from femoral hernia; two in children, one aged two years, and the second four months; the remaining number in males, their ages varying from 35 to 75, and the variety of hernia being inguinal and inguino-scrotal. There was no case of femoral. Dr. Fleming outlined the several varieties of forms of the sacs of hernia, and illustrated the most usual by reference to the cases then under observation — the cylindrical, the globular, the conical, the pyriform, and the pouched or sacculated were specially observed. He considered those as points of practical import, and especially so in establishing differential diagnosis. As before remarked, the femoral were of the globular form. In the cases presented at this sitting they were so, and were small, and did not encroach over Poupart's ligament. He remarked on the comparatively small size of that variety of hernia both in male and in female. There were yet exceptions, however, as several plates illustrated, and one remarkably so, in a female, unmarried, in whom the hernia reached even beyond the middle of the thigh. He could not bring to his recollection ever having met with femoral hernia in the young male child. He did once or twice in the young female child, but at that age, and in that sex, it was extremely rare to meet with even any form of hernia. The case of scrotal hernia in the boy, aged two years, presented peculiarities worth their attention, as in all other cases of enterocele, namely, its peculiar clear sound on percussion; but, in addition, Dr. Fleming showed satisfactorily that it was translucent, a condition intelligible from the remarkable thinness of the scrotum and of the hernial sac, containing within it a loop of a thin intestine, distended with flatus, and equally thin-walled. Such condition of translucency was by no means uncommon in the large scrotal "enterocele" of the young child.

The number of scrotal herniæ witnessed in the men was remarkably large, and many were double. In one instance, the hernia reached the size of a cocoa nut on each side, and no application had ever been made previously for a truss, although they had existed for four or five years. It was surprising how careless people appeared to be respecting the presence of herniæ and of hydroceles. Their painless and gradually and almost invariably progressing growth may, perhaps, in some measure, account for such remissness—a remissness by no means confined to the lower ranks of life. He had often detected hydroceles and herniæ, single, double, and co-existent, of very large size, in which the attention of the surgeon was never directed to their presence by the patient, although many of his ailments complained of had special connection with them. In dyspeptic cases especially, he recommended the examination of the abdomen, particularly in the ordinary seats of hernia. Often and often the discovery of a hernia and the subsequent application of a well-fitting truss relieved such symptoms, which under previous treatment were totally unmanageable. Such class of case immediately now, accidentally presented itself, and he begged their special attention to it. A man with a fully-reducible scrotal hernia complained of considerable suffering from flatulence after meals, and said that his stomach "bulged out," as he termed it, during the paroxysm of such attack. Dr. Fleming had the abdomen fairly exposed, and a "ventral" hernia at once caught his attention.

The more important diagnostic features of such hernia were detailed and contrasted with those of umbilical hernia. Remarks respecting the co-existence of hydroceles and hernia were already disposed of, and did not now require repetition. He tapped two such vaginal hydroceles, in one of which the testicle was considerably enlarged, and lay below the fluid, the hernia being distinct above it.

There were three cases of "direct" inguinal hernia very well outlined. Dr. Fleming remarked the resemblance in form of the sacs of such hernia to those of femoral hernia, and pointed out their diagnostic characters. The facility of tracing with the fingers along the under border of Poupart's ligament in such cases, without any interruption, to the insertion of that ligament into the spine of the pubis, was an admirable assistant to the decision of the surgeon. The test by percussion, as forming an important item in establishing the differential diagnosis between hydrocele and scrotal enterocele was illustrated in the several cases as they presented, and the paramount value to the surgical student of the study of those monthly exhibitions of cases for truss-issue was strongly enforced. From rough notes taken by Dr. Fleming during the last fifteen or sixteen years, he found that the average annual number of applicants for trusses was seldom under 400—often above it—and he need not add the immeasurable instruction derivable from the examination of such cases, both to surgeon and to student. He would take the earliest opportunity of making some remarks on "hydrocele of the hernial sac."

MILITARY HOSPITALS.

A few weeks ago we gave the particulars of two interesting cases from the Army Blue Book. At the request of numerous friends to whom that heavy volume is inaccessible, we shall continue to avail ourselves of the mass of material it contains, and proceed at once to relate two cases of heart disease treated by Staff Assistant-Surgeon, J. F. Foster, who adds to each a few remarks:—

Case 1.—*Mitral Disease of the Heart, with Enlargement of the Fibrous Rings and intervening Fibro-Cartilaginous Mass, associated with Hypertrophy and Fatty Degeneration of the Organ.*

Private J. M'C., aged 31, a soldier of 11 years' service, seven and a half of which have been passed in India, is admitted into the regimental hospital of the 91st Highlanders, at Dum Dum, on the 27th April, 1866, complaining of vertigo and shortness of breath, with cough and hæmoptysis. These symptoms have only been present for the last two days; but for six months past he has been losing flesh and subject to palpitation after any unusual exertion. He has not, however, applied at the hospital for relief until this date.

On physical examination of the chest, consolidation of the apices of the lungs is evidenced by increased vocal resonance, bronchial respiration, and dullness on percussion. His breathing is very short and quick, and scarcely any expansion of the chest takes place during inspiration. Heart sounds feeble and distant, and very slow, only 40 contractions occurring per minute; no abnormal murmur detected. He is much emaciated, his appetite bad, and he suffers from profuse night sweats; he has also a troublesome cough, with mucous expectoration slightly tinged with blood.

Treatment.—Quiniæ et ferri citratis, 5 gr.; aquæ, 1 oz., *ter die*; olei morrhuæ, ½ oz., *ter die*. Port wine four ounces daily.

April 29.—There is much more blood in his sputa today. Pulse 36, feeble but regular; tongue furred.

April 30.—There is very little hæmoptysis this morning; but his breathing is much oppressed, so that he requires to be propped up in bed. Pulse 32. In the evening he is in just the same state; pulse 32 only and quite regular. He says he feels better, but occasionally giddy. There is no anxiety upon his countenance, and his breathing, though short and quick, is not laboured.

At 11 o'clock P.M., without any previous complaint, he

suddenly gave a scream and, before assistance could reach him, expired.

Sectio cadaveris eight hours after death.

External condition of body much emaciated.

THORAX.

Heart.—Some ounces of fluid in the pericardium. Heart large and overlaid with fat. The ventricular walls much hypertrophied, but paler than usual; that of the left ventricle being one inch thick. Large clots filled both ventricles, and the aorta was plugged throughout its whole extent. Mitral valves rigid, and studded with small fibrous deposits; the columnæ papillares degenerated into a firm pale substance, with very little muscular tissue remaining. The fibrous rings and intervening fibro-cartilaginous mass greatly enlarged, hard externally, but soft and friable in the centre, contracting both the auriculo-ventricular orifices to a considerable extent. The rings were of the diameter of one's little finger, and the fibro-cartilaginous mass as large as a walnut. Aortic valves healthy.

Lungs.—Both lungs were in a state of passive congestion throughout their entire substance, and the air cells and smaller bronchi full of frothy mucous. There was no tubercle nor any pulmonary apoplexy, and the source of the hæmoptysis could not be traced; but it appeared to have been caused by simple exudation from the engorged vessels. The right lung was adherent to the costal pleura in many places.

ABDOMEN.

Liver enlarged and congested.

Remaining organs healthy.

A microscopic examination of portions of the muscular fibre of the walls of the left ventricle and the soft interior of the fibrous rings proved the existence of fatty degeneration of the heart. The transverse striæ of the muscular fibres were generally most indistinct, and a granular appearance usurped their place. Upon the addition of liquor potassæ, well defined oil globules were easily recognised: in the softened substance from the fibrous rings they were very abundant.

Staff Assistant-Surgeon Foster remarks as follows:—This case appears to me to be worthy of record for several reasons.

It is very unusual for men with advanced organic disease of the heart to continue at their duty to within so short a period of the fatal issue; such men are generally unable to undergo any exertion long before the disease endangers life, and are constantly applying at the hospital for relief from such symptoms as palpitation and shortness of breath, which quite unfit them for the more arduous duties of the soldier's life.

The co-existence of considerable hypertrophy with fatty degeneration appears at first incompatible; but an analysis of the case will, I think, lead to the belief that the softening was a secondary disease occurring to a heart which had been previously hypertrophied by the unsoundness of its mitral valves. In any case, it is a complication which deserves mention on account of its rarity.

But, after all, the disease of the mitral valves was not of sufficient extent to account for the great hypertrophy of *both* ventricles, or to have caused death, and these results must be attributed to some other abnormal conditions.

The key to the first is undoubtedly to be found in the enlargement of the fibrous rings and fibro-cartilaginous mass, and consequent contraction of the auriculo-ventricular openings, creating an additional and very serious impediment to the circulation of the blood. In the various standard works which I have consulted, very little, and sometimes nothing at all, is said upon this subject, and yet it is evidently one of the greatest importance. Dr. Fuller, in his work on "Diseases of the Chest," says (page 561), "Obstruction of the mitral orifice is comparatively rare;" and (page 562), "Obstruction of the tricuspid orifice is exceedingly rare." The ivory balls used at Netley Hospital would have been of great use in determining the exact amount of constriction which had taken place.

But death was not caused by the valvular disease. The ventricles and arteries distended with congealed blood prove that a sudden and total failure of the nervous system of the circulation produced a fatal stasis, and this syncope was caused by the fatty degeneration of the heart.

The reason that no murmur was detected was probably owing to the extreme feebleness of the heart's action. There must have been a diastolic murmur, and very likely a regurgitant one also, though they were never heard. The date of pulsation is much the slowest recorded, as the heart's beats were counted with the stethescope; in other cases in which the radial pulse did not exceed 24 or 28 beats per minute, it is acknowledged that every alternate action of the heart was imperceptible at the wrist.

CASE 2.—*Rupture of the Aortic Valve, produced by an Embolic Clot.*

Private S. K., 27th Inniskillings, was admitted into the regimental hospital at Hazareebagh, on the 14th October, 1866, suffering from a well-marked form of bilious remittent fever. Two exacerbations occurred during the 24 hours; the greater commencing at noon and lasting six hours, the lesser one from about 2 A.M. till 6. Quinine was prescribed in five grain doses three times a day, but without any good effect, and on the 20th he was so weak and hectic, that bark and ammonia were substituted, and brandy administered. On the 27th the paroxysms were less severe, but he remained very weak, and citrate of iron and quinine was ordered. No improvement followed this treatment. He had no sleep for three days, and this rendered large and repeated doses of opium necessary.

Oct. 30.—Liq: potassa arsenitis ℥ x., quiniæ gr. iij.; aquæ sulph. camphoræ ℥j., every four hours. Tinct. opii ℥j. immediately, to be repeated if necessary.

31st.—He slept a few hours after a second dose of laudanum. Takes no food at all, and is very much reduced in strength; to have beef-tea and brandy injections per anum. Pulse quick, but thready, and very compressible.

Nov. 1st.—Pulse not so quick, but still very small; the feverish exacerbations are now indistinct.

2nd.—He no longer retains the injections which, for the last two days, have been administered every four hours, and suffers from profuse perspirations. Omit medicine, and give him tinct. ferri perchloridæ ℥ xxv. aqua ℥iss *ter die*. During the day he seemed stronger, and at 3 P.M., was sitting up in bed conversing with his attendant, when he suddenly fell back, and, after a few struggles, expired.

Sectio cadaveris, 16 hours after death.

Head.—Considerable vascularity and opacity of the arachnoid.

Brain healthy.

THORAX.

Heart.—Six or seven ounces of serum in pericardium; the heart was large and firmly contracted, its muscular walls being very thick and powerful. The left ventricle contained several small fibrinous clots, adhering to the columnæ carneæ; and immediately below the commencement of the aorta, was a large irregularly shaped mass of fibrine, the size of a walnut, adhering intimately to the ventricle and almost occluding the orifice. One of the semilunar valves was torn away from its attachment for fully three-fourths of its extent, forming a loop through which a portion of the clot projected into the aorta; there was also a ragged wound on the wall of the ventricle (not penetrating it) just below the rent.

Lungs healthy.

ABDOMEN.

Liver enlarged and soft, being easily broken down between the fingers. Gall bladder shrunken and quite empty.

Spleen, twice its usual size, and darker coloured, and more forcible than normal.

Remaining organs healthy.

Staff Assistant-Surgeon Foster remarks upon this case:

"This lesion I believe to be unique. The manner of its occurrence is evident. The clots within the ventricle owed their formation to the combined effects of a superfibrinated blood (the result of the fever), and a very weak circulation; the larger one becoming partially displaced, at once arrested the onward flow of the blood, and the violent effort of a naturally powerful heart to overcome the obstruction, drove it firstly into the wall of the ventricle, and then through the semilunar valve.

"The cause of embolism is an interesting subject, and I thought that the astringency of the tincture of iron might have assisted to produce it in the present case; but the firmness and general appearance of its adhesion together with its size, seemed incompatible with any very recent origin. It must have grown gradually, and the feebleness of the heart's action enabled it to gain dimensions, which, in the same position, and under other circumstances, would have been impossible."

Literature.

NEW EDITIONS.

THE literary activity of the profession during the past year may be judged of by the fact that no less than 121 medical and surgical works were issued in the United Kingdom. Some of these, indeed, may be of little value, and others, which the profession would scarcely care to recognise, may be enumerated in the return. On the other hand, many works classified under other heads, especially perhaps the 133 on science and natural history, are undoubtedly the productions of medical men, so that we have contributed a fair share to the 4144 books of all kinds published during the year.

Our own columns have frequently born testimony to the value of many of the productions of our brethren, but with all our endeavours we have found it difficult to keep pace with authors and publishers, and many books have accordingly remained unnoticed.

A considerable proportion of these are new editions, and we therefore propose in this article to dispose of some of them.

The first to claim attention are two splendidly illustrated volumes in their fifth and sixth editions respectively, both complete standard works by authorities of many years experience in their respective departments, both containing all that is necessary for the student or practitioner on these branches of practice, and both published by Messrs. Churchill, and illustrated in a manner even they may be proud of. If there is one thing we could suggest it would be that, of such handsome volumes, the edges might have been cut, but as many, after well studying, will re-bind them, this may be of less consequence than in works of less sterling value.

Having said thus much, we shall be expected to devote a word or two to each. Let us take first Mr. Wilson's,* which is a complete system of cutaneous medicine, and which supplies us with the latest views of one who has held the foremost place in this branch for many years. As Hebra fully acknowledges, British dermatology has always been up to the mark since Willan and Bateman gave it the position it has held since their time, and the mantle of those worthies has unquestionably, fallen upon Erasms Wilson, who has, almost alone, for more than thirty years, sustained the claims of this branch of our art, and kept its scientific progress in our country on a level with, or in advance with it abroad.

The first edition of the work before us appeared in 1842, and at once took rank as the best treatise on the subject. We need scarcely say that the author has taken care, by careful revision of the successive editions as they have been called for, to maintain his reputation, and that this—the sixth—is brought down to the present time in every detail. One of the principal subjects of a work of this kind will necessarily be classification. Mr. Wilson has now adopted what he calls the CLINICAL classification. His plan is to take the most common example of skin disease (eczema), study it in all its various aspects, and gorup with it all diseases "linked with it by natural affinity." He thus creates his first class—eczematous affections.

In this way twenty-two groups are made to comprise every form of disease of the skin and its appendages. Besides precision of classification, Mr. Wilson, as we think very correctly, attaches great importance to accurate nomenclature. He would lead us back to the origin of the several words in common use, and thus enable us to see what meanings were attached to them by the fathers of medicine, and no more useful task could be undertaken, for in such a way alone can ancient authors be understood, much less rendered valuable, to modern thinkers. But we must give a few more details as to the plan of the work. It gives successively the anatomy, physiology, and pathology of the skin. Then a complete system of therapeutics, as applicable to cutaneous diseases. In aid of the practical department we are furnished with a "Formulary of selected remedies," forming a complete pharmacopœia for this branch of practice, pp. 882 to 900. After this we have seventeen pages of a glossary of terms, tracing each to its origin, and full of much classical lore. It cannot fail to be useful. We ought, perhaps, to mention that there is a copious index, so that altogether there are 931 pages in the volume, besides those explaining the plates. These plates are sixteen in number—seven plain and nine coloured. The former, merely illustrating form, are drawn by the author; the latter are faithful illustrations of diseases. To commend the book as a whole would be superfluous. It is worthy of the reputation of the father of modern British dermatology.

The second work of which we have already spoken, is an equally complete treatise on another branch of our art, that of obstetrics, and considering the large part of the profession occupied in this department of practice, and the great responsibility attending, it may be looked upon as even more important than the one already noticed. The name of Ramsbotham has been intimately associated with midwifery for two generations, and the present edition (the fifth) of the son's valuable treatise,* is worthy of the vast experience and untiring energy with which he has maintained the name his father made. Speaking of the father reminds us that the son, the author of the volume before us, has seen long service in practice, and has long been before the world, as an obstetric physician, and as an author. The first edition of this work was, in fact, commenced in monthly parts, some eight and twenty years ago, from which time the several editions have been successively revised by the author. Since then he has held the offices of Physician to the Royal Maternity Charity, and Obstetric Physician and Lecturer on Midwifery and on Forensic Medicine at the London Hospital. The lectureships he only resigned last year, when Dr. Head, his successor, as Obstetric Physician to the Hospital, was appointed to the chair of Midwifery, and Dr. Prosser James to that of Forensic Medicine. Like many a worthy predecessor, length of service told upon him, and feeble health was the cause of his retirement. Among the thousands familiar with these pages, and we say thousands advisedly, for it appears that of the four previous editions, eight thousand copies have passed through the hands of the publishers, to say nothing of several American reprints, not a few will regret to learn that the present has been corrected upon the sick bed, with no other assistance than such as could be afforded by the author's son, who also acted as a nurse. It would be hard, indeed, were such an apology not sufficient for any misprint that may have crept into a bulky volume of more than 750 pages of letterpress. Let us hope, at least, that the author may not be a true prophet when he says, by way of parenthesis in his new preface, that "in all probability this will be the last edition I shall have to superintend." The writer, to whom the Editor of the MEDICAL PRESS AND CIRCULAR has entrusted the duty of announcing this new edition, cannot refrain from wishing that the author may, in his own case, have formed too gloomy a prognosis, and that a period of restored health may enable him to revise other editions as carefully as the preceding ones. This volume is associated with the earliest professional studies of the writer, who was, in fact, at one time a pupil of the author, and who may, therefore, be believed to be familiar with its contents. It is, however, as already stated, so well known as a standard authority on the principles and practice of midwifery, that little need be said except to state the fact of the new edition being ready. We may mention some of the improvements and changes. Another steel plate and two more wood-engravings have been added, raising the total number of illustrations to 171. Of these, no less than 92 are fine, large, steel plates. Two of them contain 13 figures, illustrative of the *corpora lutea*, and are also coloured.

* On Diseases of the Skin, a System of Cutaneous Medicine. By Erasmus Wilson, F.R.S. Sixth edition. J. Churchill and Sons.

* The Principles and Practice of Obstetric Medicine and Surgery. By Francis H. Ramsbotham, M.D., F.R.C.P. London: J. Churchill and Sons. 1867.

Dr. Ramsbotham has added a chapter on the "Diagnosis of Pregnancy," and thus filled up a rather important *hiatus* in a work of this kind. By no question is a busy practitioner more likely to be puzzled and annoyed, and in cases which will turn up in practice he will naturally refer to the obstetric authorities in his library. We have experienced this ourselves, and would willingly see this chapter even extended.

We find here reprinted Dr. Ramsbotham's powerful summing up of his objections to the use of chloroform in *natural* labour. To this he has, however, appended a paragraph or two confessing the very considerable change of his views that further experience has induced. The fact that "the casualties that have resulted have been astonishingly few," seems to have had its due weight with our author, who now recommends the use of chloroform in instances in which he would at an earlier period have discountenanced it, and he now admits that much suffering may be alleviated by putting the patient *partially* under its influence, a practice which the writer, like many others, has for years followed in natural labour with the best effect. With these changed views, although we are not surprised at the desire to record what his feelings on this subject formerly were, we should have been pleased to have had Dr. Ramsbotham's later impressions more fully recited. It may be that he thinks his opponents have fairly answered some of the objections he formerly urged, and that his views having changed, the mere reference to experience and candid recanting would suffice. We must, however, confess that some of the arguments were altogether mistaken, or are now in full force. As an instance, we may mention stigmatising the state of anæsthesia as drunkenness. Does the author admit that this was incorrect, or does he perceive that, even if it were, there would be no immorality in inducing it for beneficent purposes? Again, will he admit that they were right who said chloroform prevented the shock of labour, although he once said shock was more likely to be induced by anæsthetics. Moreover, the completeness of Dr. Ramsbotham's conversion will not be satisfactory to many, for although pronounced in the text, there is a foot-note mentioning the larger mortality from puerperal fever in Scotland than England, pointed out by the Registrar-General, and to this is appended the following question:—"Is it not possible that it may depend on the almost universal employment of chloroform in labour, throughout Scotland, which is rarely used in England?" We look to Sir James Simpson and his many pupils and admirers to reply to this challenge. For ourselves, we are too satisfied to find such an authority as Dr. Ramsbotham coming round to the view we long since adopted to cavil with him on this point.

There were some other points we should have liked to have discussed had space permitted. As it does not, we will content ourselves with saying that in it student and practitioner will find every point treated with the hand of a master, and in a style that is very agreeable to read, while its price is so low, considering what it is, that even with a large sale, outsiders may well wonder how the publishers make it pay. Every one who practices midwifery ought to possess Dr. Ramsbotham's work.

We have now to introduce a much less extensive work on obstetrics,* but one which, in the place it aims to fill, is most valuable and trustworthy. Dr. Swayne, of the Bristol Medical School, completely succeeds in his object to furnish the student with a brief and practical guide on his commencing to attend midwifery cases. It is evidently the result of much experience of the needs of the young student, and shows him exactly how to fulfil his duty without rashness on the one hand, or ungrounded fearfulness on the other. The little volume abounds in useful practical hints. It is divided into three parts. The first treats of the management of natural labour; the second of cases which the student may undertake without assistance; the third of cases in which the student ought to send for assistance. The book is not intended to be a substitute for a systematic treatise on midwifery, but as a simple guide for the beginner. We would advise every medical student to master its contents before undertaking his first case, and if midwives possessed the information it contains, and were guided by its rules, we should unquestionably have more favourable results from their practice.

A second edition has appeared of a well-written little essay† on the morbid poisons, their natural sources, effects, migrations, and the means of limiting their noxious agency. The author, Dr. James Morris, is a disciple of Dr. Lionel Beale, whose doctrines he believes "form a landmark in the history of our science." This second edition is considerably enlarged, and in our opinion improved. Nor can we consider it uncalled for—since, although the labours of Dr. Beale have been carried out with the utmost patience and perseverance, we have reason to think there are numbers who are still, to a great extent, unacquainted with his views. We therefore welcome this readable exposition of them, and would advise those anxious to understand them to peruse Dr. Morris's essay. This is not the place to attempt an exposition of the theory held by Dr. Beale, and as Dr. Morris has furnished us with a summary in his little book it would be quite unnecessary. We may, however, fairly remark, that any one who does not know what is meant by Germinal matter, or is unacquainted with what Dr. Morris calls the "contact theory," ought not to flatter himself that he knows anything about contagion, but should at once set himself to the task of supplying the deficiency of his information.

* Obstetric Aphorisms, by J. G. Swayne, M.D. 4th edition. Illustrated. 1867. Churchills.

† Germinal Matter and the Contact Theory. By James Morris, M.D., London, F.R.C.S., &c. Second Edition. 1867. (Churchills.)

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 15, 1868.

EAST-END DISTRESS.

LONDON is the place where everything attains its largest proportions. Be it good or be it bad, it is all the same in this respect—London shows it to its fullest extent. Its population exceeds that of any other city in the world. The capabilities of merchandise display themselves here on the widest scale, proving that a man may die a millionare, nay, more, may realise means equalling, if not surpassing, those of royalty itself. Crime raises its giant head and stalks through the length and breadth of the community, and poverty, too, assumes its most frightful dimensions in the capital which boasts of being the richest in the world.

This latter feature of the London population is most self-evident at the present moment, in the different parishes at the "East-End." It would be too much to hope that this evil can ever be totally eradicated from human society. However prosperous a nation, or wise and paternal its government, so long as human nature remains what it is, and the world is perpetuated on its present basis, there must be "the poor"—men in actual need, unable to procure for themselves and their dependants the necessities of existence, and who must perish but for the aid of others. The question is only one of extent. The disease is hereditary. Can we do anything to check its progress and bring it down to the lowest point of necessity, where it baffles all our care, and where perhaps it may become an ingredient in the body politic contributing to the general health? We are far from having reached such a desirable state of things yet. Pauperism and distress in the localities referred to are fearfully on the increase, and it becomes more than ever the bounden duty of those in authority

to search into the cause, and, if possible, apply the remedy.

For a long time past it has been evident—more so of late—that our present Poor-law system has hardly been able to cope with the ordinary condition of the poor, much less to contend with those outbreaks of distress, which at times, from unexpected causes, overwhelm multitudes of our fellow-men. Private charity has invariably come to its aid in such cases; but, notwithstanding all—though unknown thousands of pounds have been cheerfully contributed and dispensed—the pauperism is as predominant as ever. Indeed, it is more extensive, and the cry of distress far louder than the winter before. It seems to grow and increase by the very means which are employed to prevent it.

Evidently there must have been something wrong in the administration of the funds so generously supplied, as well as defect in Poor-law management, or the evil would not be increasing with the increase of the means to prevent it. Money in the civilized world is the panacea for want and woe. It can procure whatever is required for the alleviation of men's physical necessities, and when it is forthcoming in sufficient amount, and still those necessities augment, there must be defect in some quarter. Far be it from us to say one word which would have the effect of restraining the liberal donations of the charitable for the relief of the suffering poor, and the rescue of those who have been overtaken by calamity, or ruined by commercial depression. We rejoice to think that there is such a spirit of kindness abroad, and that it pervades almost every order amongst us—that the shilling of the humble tradesman is given as willingly as the sovereign of the wealthier class in every time of need. But still it ought to be borne in mind that the best intentions and the noblest efforts may be perverted, if not judiciously carried out. Money-giving, though praiseworthy and indispensable, is not all. A just distribution of the alms is as much a part of true charity, as the free and open hand loaded with gold, and the neglect of it may lead to consequences as unhappy almost as poverty itself. Some disclosures have already been made, and the subject has aroused the attention of the East-end Committee. Great difficulties, we are aware, attend the proper distribution of gratuitous relief in a locality so extensive, and so thickly populated as the one in question. But we trust that while the truly necessitous are properly cared for, no effort will be spared to prevent a permanent pauperism from establishing itself in the place of a temporary distress, and entailing upon us evils which we may have bitterly to repent, and which it may take years to overcome.

Notes on Current Topics.

The Public Health.

The deaths registered in London during the first week of the year were 24 under the estimated number. This exceeds the prior week by 191. The actual mortality was 1624. 300 deaths were caused by zymotic disease. The average number for the week is 354. Scarlatina was fatal to 43, measles to 55, whooping-cough to 52, typhus to 40. To small-pox 22 deaths were due.

Among chest diseases there were registered 157 deaths from phthisis, 232 from bronchitis, 104 from pneumonia, and 84 from disease of the heart.

The annual rate of mortality in the large towns of the kingdom was 28 per 1000 persons living. The rate in London was 27, in Edinburgh 23, Dublin 32, Bristol 23, Birmingham 30, Liverpool 32, Manchester 40, Salford 33, Sheffield 22, Bradford 32, Leeds 27, Hull 27, Newcastle-on-Tyne 29, Glasgow 27.

Middle-Class Lunatics.

Dr. Ellis, of St. Luke's Asylum, in a letter to the *Times*, draws attention to the fact that there are no institutions for the reception of the insane of the middle classes, and thinks it desirable that a suburban asylum should be built for them. Dr. Sheppard, of Colney-hatch Asylum, supports the proposals, and says that he is frequently obliged to tell applicants that the magnificent institution to which he is attached is only a pauper asylum for the County of Middlesex.

It may well be that between the pauper and those who can afford accommodation in private asylums, there are many whose cases require skilled attention. We believe that in some counties they may be received into the county asylum at a moderate charge. Other cases are, no doubt, under the charge of medical men in country districts. Still, it is worth while to consider whether anything could be done in the matter, although we are at once confronted with the difficulty that an enterprise of the kind ought to be at least self-supporting, and if at all remunerative, would be sure to be carried out. We do not feel at all sure that there is any urgency in the matter. If private asylums were to make more widely known amongst medical men the lowest terms at which they can give moderate accommodation, we believe they would have many more applications than they now meet with. Our opinion on this question is confirmed by the fact that an attempt to erect a middle-class asylum a few years ago fell through for want of funds, although advocated by the leading alienist physicians of the day.

London—Street Accidents of the Past Year.

The Registrar-General's returns give some insight into the sad waste of human life by the so-called accidents that are constantly occurring in the crowded streets of the Metropolis, through carelessness or recklessness. We are told that during the year 1867 the deaths of 164 persons who were killed by horses or carriages in the streets were registered. 49 children under the age of 10 years, 15 young persons from 10 to 15 years of age, 41 persons aged 20 and under 40 years of age, 29 aged 40 and under 60, 27 aged 60 and under 80, and 3 aged 80 years and upwards lost their lives, in many cases it is to be feared from the negligence of men driving in the streets. The large number of children who were killed is accounted for in some measure by the absence, in the poorer parts of the metropolis, of open spaces or playgrounds available for recreation; for children living in crowded and ill-ventilated courts can only play in the open streets. Besides the unfortunate persons killed, a much larger number receive serious injuries, which tend to shorten and embitter the life they would otherwise enjoy. It would diminish the danger of the streets, if light bridges were constructed over, or subways under, the most dangerous parts of crowded thoroughfares; and if the penalties for furious driving were strictly enforced.

10 persons were killed by horses, 3 by carriages, 7 by omnibuses, 17 by cabs, 32 by vans or waggons, 5 by drays,

43 by carts, and 47 by vehicles not described. The large proportion of fatal cases occurring from injuries caused by vans, waggons, and carts probably arises from those heavily laden vehicles being driven so fast that their weight and momentum prevent their being stopped in time for foot-passengers to escape. Cabs and light carriages are more under the control of the driver; hence fewer casualties from this class of vehicles are recorded.

The Medico-Political Association.

This Society, to which we have previously drawn attention in our Irish edition, held, last month, a very successful meeting at Brighton.

The Association has been formed for the purpose of discussing and taking action upon the various questions relating to the position and influence of the Profession. It aims, first of all, at the representation of the registered practitioner upon the Council; and as a second object, at the annihilation of unpaid and under-paid professional labour.

All our contemporaries have spoken a few words of encouragement to the promoters of this Society, and expressed their belief that its objects will meet with the sympathy and approval of the whole Profession. Should the wishes of the Association be realized, it cannot fail to elevate the profession.

The Title to a Prescription.

The *New York Medical Record* publishes a legal opinion on the query whether an apothecary is at liberty, on the request of a customer, to dispense a repetition of a prescription without a special order from the Physician, and argues that he "has no more right to do so than a merchant would have to deliver on a written order for one barrel of flour, sundry barrels after the one called for."

However advantageous for the Profession it might be that a patient should be obliged to return to the physician whenever he required to have his medicine renewed, it would be ridiculous to set up a claim founded neither on practicability nor justice, for a parallel like that drawn by the *New York Record* displays only obtuseness of comprehension in the pleader. A merchant does not deliver several barrels of flour when only one is ordered, because his customer desires only one. If he wished for more he should have them just as he should have three or four bottles of medicine. He buys, as it were, the copyright of the prescription, as regards its application to his own case, for the fee which he pays the doctor, and he has as much right to an indefinite repetition of it, as a publisher has to issue any number of editions of a book which he may have purchased.

It is quite another matter when the Apothecary serves out to all-comers the prescription entrusted to him for dispensing, for, in that case, he has simply purloined the property of his customer, in appropriating a recipe for which he paid nothing—which was entrusted to him in confidence, and for no other purpose than to make it up—and which is in no respect public property. If he does this, he is simply a rogue, and the greater one if he does it under the false colour of his own name.

Water-closets v. Earth-closets.

The last meeting of the Metropolitan Association of Medical Officers of Health was devoted to this subject. The difficulties surrounding the question are aptly illustrated by the differences of opinion that prevailed in an assembly peculiarly qualified to discuss it. Dr. Bishop, formerly of Naples, stated to the Society what it ought previously to have known, that the deodorising property of dry earth is familiar to some Italians, and utilized by them. The President (Dr. Druitt) summed up the debate with considerable perspicuity, drew a broad distinction between the commercial and sanitary aspects of the question, and though leaning to water-carriage for large cities where it is already in operation, looked to the dry earth system to solve the difficulties for smaller communities, as well as for such as may not yet have commenced a system of drainage, or where water-carriage cannot easily be carried out.

A Munificent Doctor.

A meeting of a few gentlemen was held some evenings since, in the magistrates' room at Bolton, for the purpose of entertaining a scheme for the foundation of charities by Dr. Chadwick, of Southport (formerly of Bolton), for poor industrious persons and orphans. The chair was occupied by the Mayor (Mr. Alderman Barlow). Mr. T. L. Rushton informed the meeting that Dr. Chadwick proposed to place £10,000, in railway and other securities, in the hands of trustees, for the erection of three or four blocks of houses in the most salubrious parts of the town, on the best sanitary principles, to be let to poor and industrious persons of good character residing in Bolton, at rents which shall not exceed in any case 5 per cent on the outlay; also to appropriate property in Salford, Stockport, and Harwood, amounting to £6000 or £7000, for the erection of an orphan asylum, in the first instance for girls, and afterwards, when the funds permit, for boys, who reside within the area of the Bolton union. The percentage arising from the rents of the houses is to be devoted to the maintenance of the asylum. The generosity of the donor excited the warmest gratitude, and a number of trustees were appointed to look after suitable sites for the erection of the houses and asylum. Dr. Chadwick, about a year ago, set apart £1000 for the erection of a new infirmary, and another £1000 for the erection of a museum and library in Bolton. He formerly practised in Bolton, where he was much esteemed for his benevolence towards the poor; and this munificence will make his name remembered by the side of that of Mr. Peabody, whose generosity, some time since, excited the astonishment of the whole country.

As medical journalists, we cannot but rejoice at having to chronicle an act like this. Few medical practitioners accumulate wealth, and it is therefore especially gratifying to find an exception to the rule, which binds most of his brethren to work, thus employing his fortune.

The Clerkenwell Catastrophe.

The Committee of the Relief Fund have published their first report. It embraces a variety of particulars which we have not space to enumerate. The funds have come in well, as is always the case when aid is required to meet any sudden calamity. Putting all sums together, they amount to more than £7000. Whether this will be sufficient to meet all the exigencies of the case, time alone can prove. Seven persons have lost their lives by the explosion. Forty-one, variously wounded, are still in the hospitals. There have been twenty-six maternity cases, most of a very serious character, and "as many as 600 families in the vicinity are suffering," more or less, "from the violence of the shock." We are glad to find that sub-committees have been appointed "to visit, personally, every house and every family, to make enquiry as to the

losses incurred, the cases of sickness or privation, and to relieve all pressing wants." We trust that these precautions will secure the right appropriation of the money so generously placed at the disposal of the committee, so that no one who really needs assistance will be overlooked, and, if further contributions should be wanted, they will be forthcoming in due time.

The Slaughter in the American War.

THE Secretary for War of the American Government, states in his report a few of the statistics of the war casualties. No less than two hundred and forty-four thousand five hundred white men, and thirty thousand negroes met their death from wounds and disease, and two hundred and eight thousand were permanently disabled. Truly a horrible result, and a complete justification of the much despised Peace Society.

It is the lot of philanthropists who aim at great objects, to be considered visionary, and therefore contemptible, but surely a fratricidal contest, ending in the slaying of a quarter of a million of men, and the maiming of nearly as many more, with all the consequent misery of mind and body, and without the gain of not one single advantage, either in the present or future, may easily be conceived sufficient to excite the feelings of persons who refuse to hear of impossibilities where great objects are to be gained.

Cookery Reform.

How is it that it has never occurred to any one that it is a wanton waste of good meat, and, moreover, of good fuel, to plunge a juicy joint in three or four times its volume of water, and then and there dissolve out of it a great deal of its nutritive value? The Norwegians have shown us the way to reform in this respect, and it has been introduced to the British public, specially with a view to the economy of fuel in the Abyssinian campaign, by Captain Warren, and under the auspices of the Society of Arts. The unthought of secret is simply to enclose the meat in an inner close cylinder, without any aqueous addition whatever. As this cylinder nearly fills the outside vessel, a very small quantity of water has to be kept boiling, and an immense saving of fuel is effected, while the soluble nutriment of the meat will be no longer carried off in the pot and thrown into the sink. Captain Warren stated that in the expenditure for fuel alone for the army, a saving of £15,000 a year can be effected. Yet simple as the reform may be, and self-evident in its theory as it is, it will probably take ten years before it is adopted by English cooks, and twenty before it forces its way through the circumlocution office.

The Vacant Coronership.

THE sudden death of Mr. James Bird has caused a vacancy in the coronership for the western division of Middlesex, and caused quite a flutter amongst our medical contemporaries, who seem ambitious to predict who will be successful in contesting the appointment. By all means let us have a medical man as coroner. We have so many times urged the propriety of medical coronerships that we need not say more on the subject. There is no lack of medical candidates talked about, but who will go to the poll seems at present doubtful. A legal candidate is already in the field, so that a division of the medical interest may lead to an unfortunate result. We hope, therefore, that the claims of those coming forward will be amicably settled, and the whole influence of the Profession brought to bear at the election.

We have heard that Dr. Hardwicke, Dr. Whitmore, and Dr. Holt Dunn are quite in earnest. Moreover, it has been proposed to invite others to stand, amongst whom we may name Dr. Letheby, Dr. Richardson, and Dr. Odling. So much gossip is afloat that it is not worth while to mention others. All we say is, let the Profession unite to support its man and carry him.

Cost of aintenance in London Workhouses.

THE old saying that "those who will not work shall not eat," seems reversed in London, for the *Pall Mall Gazette* has shown that the living of those who are lodged in the Holborn Workhouse, is very superior to that which many labourers and their families enjoy. Each pauper costs to the Union for food and clothes alone, 4s. 10d. a week, or 19s. 4d. for four persons, while a labourer with a wife and a couple of children gets only about 17s., and has to keep a roof over their head, which in London is no easy matter. The conclusion is obvious—either the pauper is over-fed, which our experience of Workhouses renders highly improbable, or else his maintenance costs relatively a great deal more than that of the working man, a much more likely explanation.

WE have to announce a fatal accident to Dr. Swift, of Eccleshall, near Stafford. On the evening of last Monday week, while returning home on horseback, on account of a hurdle having been placed across the road, the horse stumbled, and the unfortunate gentleman was thrown with such violence as to dislocate his neck. It was some time before he was discovered and carried home.

THE Metropolitan Free Dormitory Association affords shelter, and so, a chance of obtaining employment to many poor women who are literally homeless in the great city. The Society has only started about nine months, but has already afforded a refuge to many unhappy women, driven by misfortune or illness to utter destitution. To save them from a worse fate, this Society steps in with the offer of shelter. Two houses are constantly full, and the committee hope to be able to establish a home in every postal district of London.

MESSRS. LONGMANS have just published the "Story of the Captives" in Abyssinia, by Dr. Blanc, himself one of the captives. We doubt not it will obtain a wide circulation among the members of our Profession.

AS we anticipated, Dr. Tilbury Fox has been elected, without opposition, Physician to the Skin Department at Charing-cross Hospital. Dr. Fox had previously resigned his appointment at St. John's Hospital for Diseases of the Skin, to which last institution Dr. Prosser James has been elected Physician.

DR. PAGE, whose resignation of the Senior Physicianship at St. George's Hospital we announced last month, died at his residence in Gloucester-place, on the 2nd instant. Dr. Page was B.A.Oxon. 1831, and M.D. 1837. He was elected a Fellow of the Royal College of Physicians in 1838, and on the President's chair passing to Dr. Alderson, the deceased Physician became Treasurer of the College.

Address.

INAUGURAL ADDRESS
AT THE
WEST KENT MEDICO-CHIRURGICAL SOCIETY.

By W. LOCKHART, F.R.C.S., President.

GENTLEMEN,—I have to thank you for the honour you have done me in electing me to be your President for the year, and hope to discharge the duties of the office to your satisfaction, and shall endeavour to do what I can to promote the usefulness of our Society.

Associations of this kind are valuable, inasmuch as they give to the members of our profession an opportunity of occasional personal meeting, and thus, further that good understanding that ought to bind us together, and perhaps, in some degree, remove the charge that is often brought against us of being jealous of each others success.

In meetings such as ours we are able to express our opinions on subjects which interest us, and the results of our observations, which would otherwise be lost, are thus made known to each other, with the aim and object which ought ever to be borne prominently in our minds—namely, the welfare and benefit of those who, as patients, commit their health and comfort to our care.

By meeting from time to time we are able to discuss those subjects which arise among the community, often affecting them seriously, and on which, if medical men did not, either by the living voice or by written papers, expound their several views, much would be lost that experience or observation teach us all, whatever be the sphere of our labours.

[The President here referred to the papers expected during the session 1867-8, and then made some remarks on the subjects of interest that have presented themselves in the past year, adding that he had no means of investigation regarding new points but such as are open and common to all.]

One of the things that necessarily attracts our attention is the new *Pharmacopœia* that has lately been issued by the Medical Council. No doubt, many difficulties presented themselves in the production of this work, but the one great object is attained of having one only standard for officinal medical substances and compounds throughout the United Kingdom and its colonies. This is a very great boon. Various new medicines are also now introduced into the list, and the directions for the production of the various medical agents, whether chemical or otherwise, are such as the pharmaceutist can follow and carry out to a successful issue, which is a new feature in official pharmacopœias. The education of medical students is now carried out most carefully, and a high standard required. Care must be taken that the education thus given be not considered so sufficient as to cause the student to suppose he has done all, when he gets his diploma, but rather to lead him to feel that his student life is one that merely fits him to learn his profession afterwards.

In the country with which I have been much associated, and in which I have spent nearly thirty years of my professional life, the education of students for the Medical Profession can hardly be called practical in any sense. There the student, after completing his literary studies, turns his attention only to books; there are no medical schools or means of public instruction. The Imperial College of Medicine in Peking neither teaches nor examines; its officers have only to fulfil certain State duties, and are in part chosen from the most celebrated of the Medical Profession; but even this qualification is not in all cases requisite. A man who desires to take rank in the Profession announces as his most direct appeal to public confidence that he is a Physician of two, three, or four generations. Surgery is almost wholly unknown. The practice both of medicine and surgery is entirely empirical, and it is not so much from the use of drugs that practitioners derive their success as from the dietetic rules and good nursing which they enjoin. It is a remarkable circumstance that so large and populous an empire should possess so little even of the art of physic; and yet its people increase and multiply year by year. I used often to think on this subject when present among the people, and was led to the conclusion that the effect of our European systems, and the practice of medicine and surgery, are not powerful so much in prolonging life, as in rendering that life in its morbid conditions more endurable. In a country circumstanced as China is, eye disease produces great misery, cases of this kind being wholly left to nature, without any effective interference. Small-pox inflicts frightful ravages, more especially in the north of China. Almost one in three persons is marked by small-pox, and many have their eyesight damaged from the same cause. It is true that inoculation is practised, but this, while abating the violence of the disease in individuals, perpetuates it among the community. In cholera epidemics very little is done, and the treatment that appeared to win the confidence of the people in Peking during the fearful epidemic of 1862, when I was there, was the use of acupuncture in the back of the leg. In many cases seen by me at that time, the choleraic poison seemed simply to kill. There was often little vomiting or purging, but cramps and collapse constituted the condition of the patient.

Our own land suffered much last year from cholera, but happily we have had no fresh visitation of the disease in an epidemic form, though it would appear that some accidental or sporadic cases have occurred. The same thing prevails in the East. There is seldom or ever a year passes by in which individual cases of well-marked distinct cholera do not present themselves, and yet the disease does not spread; while in other years the whole community is more or less affected.

The President next alluded to the subject of treatment, and the fact that the early cases of an epidemic are usually fatal.

He next offered some remarks upon the connection between the presence of ague and the absence of lung disease in districts where the former prevails.

He then continued—A very remarkable disease presented itself in Ireland during the early part of this year—that form of cerebro-spinal meningitis, which was called febris nigra, or malignant putrid fever, also noticed in Germany for some years past. I was present at the meeting of the Royal College of Physicians in Dublin, when the subject was discussed. The cause of the fever is hidden in obscurity, but the effect seemed to be a poisoning of the blood, which, in the early and most fatal cases, ended in large parts of the body being perfectly black. The general feeling, which was participated in by Dr. Stokes and several others, was that it is non-infectious. Happily the disease has not visited us in England thus far.

While we have, by God's good providence, been spared the visitation of plague and pestilence, we have heard with feelings of sorrow the terrible visitation of fever in the island of Mauritius, which has been exceedingly fatal. It would appear to have been a malignant form of intermittent fever, partly caused by the cutting down of the forests in the interior, thus disturbing the equable seasons of the country.

In the southern parts of the southern states of the United States, as in Texas, there have been, and still are, frightful ravages committed by a very fatal form of yellow fever, so malignant in its character, that we happily have no experience of such in this country.

While speaking of infectious diseases it may be remarked that in the East measles are usually little known, and scarlet fever hardly if ever seen. Of late years there appears to have been an increase in the cases of small-pox in England and other parts of Europe; and it is a remarkable fact, that in the navy (and this applies to other navies as well as our own), the men are very liable to small-pox, so much so, that it would appear as though the presence of many persons sleeping and living together for long periods, gives rise to the disposition to this essentially purulent disease. In connection with this subject I would throw out the query about pus—is it in the blood or is it produced as a result of change in the structure of parts?

Sewage of towns, difficult to dispose of, but when the greatest judicious care is taken, then also, in all instances, is the death-rate of the inhabitants diminished. As, for instance, in several of our large towns, and notably in Liverpool, of which town I am a native, and was once dispensary surgeon, during epidemics of typhus and cholera, in 1834. Well do I remember the fearful ravages of these diseases in the lower parts of the town, but which now are becoming more salubrious. In my opinion, though I speak quite impartially, having nothing whatever to do with the parties concerned, I believe the dry earth closet system is the best for the disposal of sewage. I had the opportunity of witnessing it in operation in Dorchester, some time ago, and was astonished at the complete effect of the system. Excuse my frequent reference to China, but I there saw largely practised a similar thing, where the manure gatherers collect the night soil, mix it with earth, dry it in the sun, and export it in the form of inodorous *cakes or bricks*, which are *afterwards* mixed with water and scattered over the fields.

The subject of Medical Coroners is very important, and it

seems strange that the self-evident desirability of a medical man in such an office should not be recognised. The president here mentioned that inquests are held in China, and that the coroner is always a medical man, who goes with the magistrate to examine the body of the deceased person. He said he had been present at one of these inquests held in his hospital, and witnessed the examination of the body. He here showed Chinese work on inquests. He then referred to the Papers on Mankind, read at Dundee, and alluded to some remarks of lecturers on Unity of Mankind. He then criticised Curious Researches of Dr. Bence Jones, on opalescence of animal tissue, probably from presence of quinine in the tissue, which malaria probably destroys, and referred to other subjects of late before the profession, including the Laryngoscope—the Ophthalmoscope—Sygmograph—the use of Thermometer in observing Temperature in Disease—Acupressure—Treatment of Cancer by Injection of Acetic Acid—Local Anæsthesia—Reduction of Dislocation by Manipulation—Cure of Aneurism by starvation, acetate of lead, compression, and introduction of wire.

The President concluded by mentioning the deaths in the profession during the year—among others, mentioning, with respect, Sir Chas. Hastings, Sir Wm. Lawrence, Trousseau, Velpeau, Brinton, Jeaffreson, Barlow, Toynbee of the Medical Benevolent Society, and Propert of the Royal Medical College at Epsom, observing that to the two latter the thanks of the Profession are especially due, for their untiring and benevolent exertions on behalf of the widows and orphans of medical men left unprovided for.

DR. LETHEBY ON THE PROPAGATION OF CHOLERA.

In his report on the sanitary condition of the city of London for the year 1866-7, just issued, the learned and indefatigable Medical Officer of Health for the City gives an able and elaborate account of the last epidemic of cholera, and examines some of the theories that have been propounded to account for the sudden outbreak of the pestilence. Constant readers of the Medical Press and Circular will not require to be informed that it has long been known that Dr. Letheby entertained grave doubts as to the truth of that theory which attributes the spread of cholera to pollution of the drinking water—a theory which, from its nature, might seem to superficial observers fully satisfactory, and which has been forced upon the public with unusual pertinacity. It is natural, therefore, to turn over the leaves of this report, and see first what will be said by so competent an authority on the question.

Let us, then, at once state that Dr. Letheby gives no countenance whatever to the water-theory. Not that he thinks it necessary to deny that the contamination of water by choleraic excreta or other impurities might in some cases generate disease; but he finds that the hypothesis of the distribution of polluted water being the cause of the spread of cholera is insufficient to account for the facts of the last epidemic.

It is needless to observe that any hypothesis which does not account for *all* the facts is by that very circumstance provocative of doubt; while the moment *any* of the facts are shown to be irreconcileable with it, it must be abandoned.

For a long time the advocates of the water-theory have had the ear of the Profession and the public, and they have been instant in season and out of season, in proclaiming its sufficiency. It is time, therefore, that those who feel dissatisfied with it should have a hearing, and if they have waited patiently for a leader to express their views, it must be acknowledged that they now have one with whom it will require all the forces of the opponent to cope.

The gauntlet has indeed been thrown down before this, but the upholders of the water-theory have been too ardently engaged in trumpeting their one idea, to pick it up or to notice the evidently hostile but silent and dissatisfied investigators, who were not carried away by their enthusiasm. In these days of sensationalism, we may well feel some content at the calm which reigns over so large a part of the professional mind, and moulds it into a patient waiting for truth, which is often mistaken for incredulity. This saves us from that instability which would make us a prey to every wind of doctrine, and enables us to preserve the expectant attitude with which alone we may hope to successfully interrogate nature.

The Medical Press and Circular, during the last year, has devoted much space to an examination of the various theories that have been submitted respecting cholera. It becomes us, therefore, at once to give prominence to the views expressed by Dr. Letheby. We therefore hasten to lay before our readers, in his own words, the salient features of his report, merely bespeaking for them the attention that is their due, and calling upon the advocates of the doctrine thus impugned, to substantiate their views by a full reply, or to acknowledge that they are henceforth untenable.

After a succinct history of the epidemic, embracing a notice of some of its prominent features, and a brief allusion to some other theories, Dr. Letheby thus comments on the hypothesis that polluted water was the source of the mischief :—

The alleged pollution of the water rests upon a series of assumptions, many of which are in the highest degree improbable. It happened that two deaths from cholera occurred on the 27th of June, at Bromley, immediately in the neighbourhood of the East London Water-works, though far removed from their source of supply ; and it is assumed that the alvine discharges of the two sick persons were cast into the privy, and found their way, through the sewers, in the river Lea, where, by being diffused through a large volume of water, they passed upward against the current of the stream, and arrived opposite an open, but rarely used, reservoir of the water company ; that they then soaked through a thick embankment, and so obtained access to the water of the uncovered reservoir ; that on a certain day some of this water was admitted into the covered reservoir, from which the public supply was taken ; and that it was thus distributed to the district supplied to the company. But if, for the sake of argument, it were admitted that all this did in reality happen, it would be a curious mathematical problem to determine what was the degree of final dilution after the alvine matters had entered the sewers, then the river Lea, then the open reservoir, and, lastly, the covered reservoir ; for it is not supposed that the choleraic discharges were bodily conveyed to the covered reservoir, but that only a small portion of each of the successive dilutions became mixed with larger and larger volumes of water.*

Apart, however, from the improbabilities of these assumptions, it is a fact that the water which is said to have been thus polluted did not produce its effects in the several districts to which it was distributed in anything like uniformity of time or force. Suppose, by way of illustration, that alcohol or arsenic had become mixed with the water, and that on a certain day it was distributed to the public, we should expect to find that the action of the poison was not only manifested at the same time over the whole district of supply, but that it was confined to that district. Not so, however, with the water in question, for although it is not alleged to have been more than once polluted, yet the first effects in the several districts occurred at long intervals ; and there were many places to which it was distributed, where there was no sign of the disease ; while others which did not receive the water were seriously affected.

The dates of the outbreak of the disease in the districts supplied with the East London water, were as follows : Bromley, June 27th ; Poplar and Bethnal Green, June 30th ; Shoreditch and Mile End, July 7th ; Whitechapel, Stepney, and St. George's-in-the-East, July 14th ; and the East London Union, July 28th. A month therefore elapsed between the first outbreak of the disease in the several districts. It is, moreover, remarkable that, while it was so violent in many of the districts of supply, it was absolutely powerless in others. The death rate for example of Bethnal Green was 63 per 10,000 of the population ; Whitechapel, 78 ; Poplar, 85 ; and St. George's-in-the-East, 93 ; whereas the districts of Stamford Hill, Upper Clapton, Walthamstow, Woodford, Wanstead, Leytonstone,

* I need not discuss another supposed source of pollution, the cholera cases at Theydon Bois, eleven miles from the works, for that hypothesis is abandoned.

Buckhurst Hill, North Woolwich, and Silverton,[1] were absolutely untouched by the disease, notwithstanding that they received the same water, and at the same time.

More remarkable still, there were places in the very heart of the cholera field, and others close adjoining it, where the residents received the same suspected water, and used it freely, without suffering in the least degree. In the Limehouse School, around which the cholera was frightfully fatal, there were 400 children who drank the same water as their neighbours, and yet there was not even a case of diarrhœa among them. In the London Hospital, which is also in the heart of the cholera field, for it is surrounded by the districts of Whitechapel, Bethnal Green, Mile End Old Town, and St. George's-in-the-East, there was an average resident population of 463 persons, and, although they drank freely of the unfiltered East London water, yet there was not a case of illness among them.[2]

Again, in the eastern division of the city of London, which adjoins the cholera field, the suspected water was supplied to 161 houses, with a population of about 1732 persons, but except in one of these houses (20, Somerset-street), which is on the boundary of Whitechapel, there was not a single death from cholera,[3] and to verify this, I have obtained the addresses of all the persons who died in the cholera ward in Bishopsgate-street. But, besides this, the disease was singularly fatal in places where the suspected water was never used. In Crown-court, Blue-anchor-yard, Whitechapel, where the water supply is from the New River, the mortality was at the rate of 284 per 10,000. In Boar's-head-yard, of the same district, which is also supplied by the New River, the death-rate was 193 per 10,000; and indeed there are eighteen courts in Whitechapel, where none of the East London water was used, and yet, out of an aggregate population of 4351 persons, there were 30 deaths from cholera, the mortality being at the rate of 69 per 10,000; that of the whole district being but 77.

Another such an instance is the case of the City of London Union at Bromley. In the midst of the cholera districts it suffered in common with the whole neighbourhood, for out of 765 persons it lost 27 from the disease, which is at the rate of 353 per 10,000. But during the whole of the time the residents used no other water than that from a deep artesian well, which, on being analysed, was found to be good and wholesome.

So that on carefully examining the facts in their relation to the water theory, we find—

1. That there is no proof whatever of choleraic pollution of the water.
2. That there was no coincidence of time in the appearance of the disease in the several districts supplied with the suspected water.
3. That numerous districts receiving the same water, but situated at high level, or placed beyond the cholera field, were entirely exempt from the disease.
4. That even in the very heart of the cholera field, there were places receiving and using the suspected water with impunity.
5. That other places not supplied with the water, but situated within the infected area, suffered equally with the neighbourhood.

I am far from wishing it to be thought that choleraic matter diffused through water will not produce disease. There is abundant evidence to show that it is often a prolific source of it; but I am anxious in dealing with a question of so much public importance as the origin of the late epidemic, that none of the facts should be perverted, and that no hasty or ingenious hypothesis without solid foundation should take possession of the public mind. In the conduct of inquiries like this there should be a calm, a full, and a candid examination of the facts. We should endeavour to study the phenomena in a philosophical spirit, and apply to them the tests of sound induction; we should strive also to deduce from them such laws as will not only expose the nature of the malady, but will at the same time enable us to treat it successfully. Rash opinions, boldly asserted and tenaciously held, though they may force themselves on public attention, rarely lead to useful results; and while they have their hold on the popular mind they seriously hinder the progress of real knowledge.

1 Silverton was affected towards the end of the epidemic, when no water theory could account for it.

2 574 cases of cholera were treated in the Hospital, but they were all brought into it sick of the disease. A nurse who lived out of the Hospital died of the disease.

3 There were two deaths in this house from cholera, but both were late in the season—viz., one in the first week of August, and the second in the third week.

Looking back, however, on the experience gained by the last visitation of cholera, and comparing it with that of other visitations, we may fairly ask if any general conclusions may be deduced from the most prominent facts. It appears indeed—

1. That cholera is not indigenous to this country, or even to Europe. Its home is the swampy and low-lying districts of India, where, from the year 1817, it has been native to the soil. No other tropical ground is persistently occupied by it; for, although it may visit other such localities, and for a time be severely fatal, yet it never fixes itself endemically in any place beyond the Indian Peninsula. The Delta of the Nile seems at first sight to be as congenial to it as the banks of the Ganges and the Hooghly, but although cholera visits it in its migrations, it never permanently occupies it.
2. That in its journey from India it always follows the lines of traffic, moving from port to port along the coast, and passing inland by the tract of navigable rivers. Until the last visitation its course from India was always the same, but the rapid advance of commerce has changed its route, and made it pass at once from the eastern frontiers of Asia to Southern and Western Europe.
3. That it is always imported into this country from an infected district, and generally from Holland or the ports of the Baltic.
4. That the visitation is not preceded by any remarkable condition of the atmosphere; for although in the epidemics of 1832, 1848, 1854, the weather was warm, the barometric pressure high, the air stagnant with prevalent mists, and there was but little rain, yet in the visitation of 1866, the condition of the weather was almost exactly the reverse of this—for the barometer was generally low, the season was cold, the atmosphere was constantly in motion, with frequent gales, and there was much rain.
5. That although the disease is of tropical growth, and is generally most severe in its manifestations during the summer and autum heat, yet it is not always checked by the cold of winter. The epidemic of 1830 was terribly fatal at Moscow during the winter of that year. The same was also the case at Berlin in 1832; and the epidemic of 1849 was at its height in Glasgow, Paisley, and other towns of Scotland in the middle of winter; so also in the epidemics of 1854 and 1866 the deaths from cholera at St. Petersburg were very numerous when the thermometer was below the freezing point. It may be that the conditions as to temperature and moisture within the houses at this time were not very different from those of summer time.
6. That the advent of the disease is generally marked by some increase as it were of the zymotic force. It is difficult to judge of the general condition of the public health at the time of the visitation in 1832, but at the coming of the epidemics of 1848 and 1853, there was an unusual amount of zymotic disease. At Moscow and St. Petersburg, and in other Russian towns, the outbreak of 1848 was preceded by a general prevalence of influenza, and of intermittent fever; the latter disease, in many continental cities, taking the place of typhus in this country. Diarrhœa also, in the European cities first attacked, was generally prevalent before the actual outburst of the disease. At Berlin intermittent fever, diarrhœa, and dysentery, but especially diarrhœa, were epidemic. The same disease, but particularly intermittent fever, scarlet-fever, and influenza, were prevalent at Hamburgh. In London there had been, during the preceding five years, a progressive increase in the whole class of zymotic disease—amounting to an excess of 31 above the average—the diseases which chiefly contributed to this excess were typhus, scarlet-fever, influenza and diarrhœa.[1] A like increase in nearly the same disease, preceded the epidemic of 1854, as if the public health was below the standard, and the conditions existed for the development of zymotic maladies. Not so, however, at the coming of the last epidemic; for, excepting a very slight increase in the proportion of deaths from typhus and small-pox, there was nothing to indicate an unfavourable state of the public health; said diarrhœa, the common precursor of cholera, was much less prevalent and fatal than usual.
7. That the habitats of the disease are on low and marshy-ground, along the margin of tidal rivers, where the soil is porous, and is sodden with animal excreta and where the population is dense and not of cleanly habits. It has, however, eccentricities of selection; for sometimes it will fix itself on

1 Report of the General Board of Health on the Epidemic Cholera of 1848-9.

one side of a street, and not touch the other; or it will localise itself in one ward only of a prison or lunatic asylum, or workhouse. There is no doubt a sufficient reason for this, but at present its capriciousness passes our comprehension.

8. That when it attacks a place, it always commences with a few straggling cases ; it then rapidly increases in violence, and gradually abates. The circumstances which give intensity to its action are entirely local, as the altitude of the place, the density of the population, and its sanitary condition. The altitude of a place appears to have the largest influence; and next to this the density of the population. In the epidemic in 1849, this was well exemplified by the duration of the disease; for in 41 registration sub-districts, each with a population of less than 10,000, the average time of the epidemic was but 81 days ; in 44 sub-districts with from 10,000 to 20,000 inhabitants, the mean duration of it was 108 days; and 35 sub-districts with from 20,000 to 30,000 persons it was 117 days. But it has its caprices in this respect, for in the three epidemics of 1849, 1854, and 1866, the time of its reaching its greatest intensity in London was 14 weeks, 9 weeks, and 5 weeks respectively; and the duration of the disease was equally variable—the last epidemic remaining with us but six months, while in former visitations it was here for more than a year. The influence of sanitary measures may have had something to do with these results, for their beneficial action has everywhere been abundantly proved.

9. That as regards the individual attacked by the disease, it has been generally observed that he has suffered from diarrhœa for one, two, or three days before the setting in of serious symptoms; and this is ordinarily amenable to treatment.

10. That the period of incubation of the disease—that is the time which elapses between exposure to infection and the coming on of well-marked symptoms is variable, although it probably ranges from three to eight days.

11. That the duration of an acute attack when the symptoms are fully developed is rarely over a day, while that of common English cholera is not less than three days, and of ordinary diarrhœa six days.

12. That the mortality is always most severe at the beginning of an epidemic, when, as in the London Hospital, it may amount to 85 per cent. of those attacked ; whereas, at the end of the visitation, it is much less severe, and may not exceed 37 per cent. Throughout the whole of the epidemic, however, the mortality has generally been from 41 to 50 per cent., excepting when, as in continental cities, the sanitary conditions are unfavourable, and then it may amount to from 60 to 70 per cent.

13. That the disease is only infectious in the sense that the alvine discharges of the sick are capable in all probability of communicating the disease to the healthy. Observation indeed, in every part of the world, leads to the conclusion that they are the sole agents in propagating the disease ; but the exact element or *materies morbi* which is thus concerned in communicating it is not known. The researches of Dr. Parkes in this country, Dr. Thome, of Cologne, Professor Klob, of Vienna, and Professor Hallier, of Jena, have shown that the alvine discharges of persons sick of cholera, contain myraids of low cryptogamic organisms of the nature of a minute microscopic fungus, which is capable of rapid growth and multiplication within the human intestine, and which feeds on and destroys the mucous coat of the bowel. It would seem, too, from the experiments of Dr. Thiersch, of Munich, and of Dr. Sanderson, of London, on mice fed with paper saturated with choleraic matter, that the alvine discharges are not infectious in their fresh condition ; but that after the fourth day, and up, perhaps, to the eighteenth day, they possess infectious power. If further experiments give a conclusive value to these results, their importance cannot be over-estimated ; for it points to the means of at once arresting the course of the epidemic by the quick destruction of the alvine discharges, and of all things that are soiled by them.

14 and lastly. It is unquestionable that active sanitary measures employed even during the visitation of an epidemic, are of the greatest value in checking its course. The differences in the force of the disease at its several visitations to the city afford ample proof of the usefulness of your sanitary measures ; and standing, as the city does, on the confines of the cholera field of 1866, I have no doubt that the active operations which were then enforced prevented the spread of the disease westward, especially along the low lying districts of the river, and thus formed a barrier to its progress.

THE VENTILATION OF SEWERS.

In our notice of the report of the Metropolitan Board of Works, we mentioned that Professor Allen Miller, M.D., F.R.S., had made a valuable report on the ventilation of sewers, and promised to give some particulars of his investigation. This promise we propose now to redeem.

Dr. Miller starts by remarking that the efficacy of charcoal as a deodorizer in the case of sewer gases may be considered as settled. His experiments were accordingly undertaken to ascertain—

1. Whether the use of charcoal trays in the ventilating shafts introduced any serious obstacle to the due ventilation of the sewer; 2. The frequency with which the charcoal would require to be changed ; and 3. To determine the mechanical, arrangements which would be most suitable.

From careful observations it was ascertained that in the twenty-four hours the temperature in sewer of the Avenue-road, Regent's-park, never varied more than four degrees. Further, the total range in a month, even when the external temperature was rapidly rising or falling, never exceeded 8°, excepting in one or two instances after a heavy fall of rain, when the flood waters rose high enough to reach the thermometers.

1st. *Determination whether the charcoal injuriously impedes the ventilation.*

This could be determined by two methods, viz.—*a.*, by ascertaining the ordinary draught of air in the sewer when there was no charcoal, and then ascertaining the amount of draught after the charcoal had been introduced ; or *b.*, by analysing the air before and after the introduction of the charcoal, and ascertaining whether any serious diminution of oxygen or increase of carbonic acid had occurred.

a. The variation of the draught of air in the sewer was examined, as follows :—A puff of smoke was produced by firing a little gunpowder, and ascertaining the time occupied by the smoke in travelling up or down the sewer for a known distance. This method answered its object sufficiently well, but it was found that such slight causes interfered with the strength of the draught, that much less information of value was obtained than had been anticipated ; since the direction of the draught and its amount were liable to be interfered with by local accidents, such as the imperfect closure of a trap, the variable force of the wind, and the opening or shutting of a side entrance : so that the act of entering or leaving the sewer for the purposes of experiment, was more than once found to reverse the direction of the current of air in the body of the sewer during the observations.

So far as the observations go they, however, show that the introduction of the charcoal into the boxes produces a sensible retardation of the current of air. Indeed any other result would be impossible.

Three sets of experiments were made upon this plan; one set before the charcoal was introduced ; and two other sets after the boxes had been charged with charcoal.

The average rate deduced from six experiments *without the charcoal* showed a current moving at the rate of 4254 feet per hour.

The first set of trials, consisting of three experiments, *after the introduction of the charcoal,* gave a current moving at the average rate of 3263 feet per hour, and the second set of trials, also, an average of three experiments, showed a current of 2005 feet per hour, in the same part of the sewer.

b. Effect of the Charcoal on the Chemical composition of the Air.

It was ascertained by direct trial that air passed freely through the charcoal in the trays, but no sewer odour was ever perceived in the escaping air ; though if the box of charcoal were purposely removed from the ventilating shaft, an immediate and powerful odour of sewage was perceived. The charcoal, therefore, did its work in absorbing the offensive products. It had, however, no direct action upon the atmosphere in the body of the sewer ; but, indirectly, it might be expected to impair its quality by detaining it for a longer period within the sewer, thereby causing it to lose a larger portion of its oxygen than if a freer current of air was maintained. The oxygen during its detention would combine with part of the decomposing refuse, whilst an increased amount of carbonic aci d was to be looked for as one of the products of decomposition ; besides which a small quantity of carburetted, and occasionally of sulphuretted, hydrogen might occur in the more stagnant parts

Samples of air were therefore collected for analysis both before and after the introduction of the charcoal.

From an average of eighteen experiments upon the quantity of carbonic acid, made during the month of May before the charcoal was introduced, and before the lateral sewers had been provided with flaps, the average quantity amounted to 0·106 parts per cent., while in the open air, the average may be taken at 0·040 parts. The mean temperature of the air within the sewer during this period was 50°·8, ranging between 48° as a minimum and 56° as a maximum.

The mean amount of oxygen in the air of the sewer was for the same interval, from an average of six experiments, 20·71 per cent., the proportion in the open air being 20·96.

After the introduction of the charcoal, the quantity of carbonic acid was found to have risen to 0·132 parts per 100 of air, the mean temperature in the sewer having risen to 56°·2, with a minimum of 52°, and a maximum of 61°·5.

The average amount of oxygen was 20·79. No sulphuretted hydrogen was present.

As a general rule it was found that the quantity of carbonic acid in the air within the sewer increased in proportion as the temperature rose in the sewer, and it declined again as the temperature fell.

No connection between the fluctuation in the amount of carbonic acid and the variation of the barometer could be traced.

On the whole, the air of this sewer was not seriously altered by the obstruction occasioned by the charcoal.

Another set of experiments were made in the Brompton sewer. The register thermometers were suspended in this sewer on the 3rd of October, and samples of the air in its ordinary condition were taken on the 4th and 5th of the month. On the 6th of October charcoal was placed in all the boxes in the ventilating openings, and samples of the air of the sewer collected as before, for analysis.

An average of six samples of air before the charcoal was introduced showed that the air in its normal state contained the large proportion of 0·307 per cent. of carbonic acid, with a temperature ranging in the sewer between 57° and 60°, with a mean of 58°·2.

During the months of October and November, twenty-four samples of the air were examined after the introduction of the charcoal, giving a mean of 0·251 per cent. of carbonic acid, with a mean temperature of 53°·2, ranging between 49°·5 as a minimum, and 57°·5 as a maximum. The diminution in the proportion of carbonic acid is in no way to be accounted for by the use of charcoal, but is occasioned, no doubt, by the fall in temperature which took place as the days became shorter.

It appears, therefore, that even in a tide-locked and imperfectly-ventilated sewer as this is no serious obstruction to the flow of the air through the ventilators was produced by the charcoal. It should be added, that the proportion of oxygen after the introduction of the charcoal was found, on an average of four experiments, to amount to 20·7 per cent. This sewer was free from sulphuretted hydrogen.

"Dr. Miller remarks upon this—"Although these results appear to show that the use of charcoal is not only effectual in preventing the escape of offensive gases from the sewer openings, but that it also does not prevent any dangerous obstruction to the ventilation, yet the question of the general adoption of charcoal boxes in all ventilating shafts is one of such extent and importance that it cannot safely be decided by experiments upon isolated main sewers such as these.

"The introduction of Charcoal Ventilators not only will require a large outlay, but it involves a possible risk to the safety of the men who work in the sewers. The results appear to me to be such as warrant a systematic trial of the method over a limited area. A complete district, drained by certain sewers, ought in such a case to be included, as it is only under such circumstances that the working in actual practice can be tested. When main sewers only are operated upon, in spite of all the care which can be taken, side draughts must interfere with the results, the flaps get eaten through by rats, damaged by flood waters, obstructed in their working by deposits, and various defects occasion uncertainty. If once a *District*, however, has been properly trapped and supplied with charcoal boxes, these difficulties disappear. It would be necessary to test the composition of the air at intervals. The effects upon the house drains, and upon the men employed to cleanse the sewers, should, of course, be carefully watched."

2. *The frequency with which the charcoal will require to be changed* in the ventilating boxes.

Dr. Miller examined some of the charcoal which had been in one of the ventilators (the lowest point in the sewer) for nearly six months, and found that it contained nearly one-fourth of its weight of moisture, but appeared as though dry when handled. This moisture had been condensed in the pours of the charcoal, and had not penetrated the box from the road. 100 parts of the damp charcoal gave off, when heated, 19·7 parts of water, and a small quantity of an offensive ammoniacal liquid. Nitrates were also found in small quantity in the products retained by the charcoal.

In another, much fouler sewer, where the charcoal had been in use only about ten weeks, Dr. Miller found it still efficient, although in one or two instances, where the traffic is considerable, the mud had worked through the covering, and gained access to the upper layer of charcoal. The lower part of the charcoal was, in each case, clean, and though saturated with condensed moisture, it still effectually purified the air from the sewer, which, as direct trial showed, passed freely through the layer of charcoal.

Another portion of the charcoal after ten weeks exposure in the ventilator of a sewer had absorbed 37·2 per cent., of moisture, and the water which was distilled off had the peculiar and offensive odour of the sewage gases.

The charcoal appeared dry to the touch, although it had condensed so large a proportion of water. The important practical conclusion is that charcoal, though thus saturated with moisture, does not obstruct the escape of air, which it still effectually purifies.

3. *The Mechanical arrangenents best adapted to the employment of Charcoal air fillers.*

In the earlier trials, three layers of charcoal, each about two inches thick, were employed. The charcoal was broken into fragments about the size of cob-nuts, ordinary wood charcoal being used. A bushel of this charcoal weighed 15lb. 2½oz., and the average weight of the charcoal, in the three trays together was 6¼lbs.

Experience showed that some modification was necessary to prevent the road drift from working in; on this account in one sewer a single tray of charcoal, 6 inches in depth, was substituted for the three shallower trays with good effect.

Further improvements, however, might easily be made in the arrangements for keeping the road drift out, and for facilitating the removal of such portions as inevitably must work through the gratings. Such modifications are particularly needed where the traffic is considerable.

In conclusion, Dr. Miller remarks that although these experiments have extended over several months, and no time has been unnecessarily lost, the question of the duration of the activity of the charcoal and its fitness for renewed use if reburned, with several others of considerable practical importance, cannot be decided without a further prolongation of the observations.

Correspondence.

CONDY'S FLUID.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the report by Dr. Procter on disinfectants, which appeared in your number of the 1st inst., there are some observations on Condy's fluid, which appear to me to call for remark.

"Condy's fluid," he says, is an "extremely energetic oxidiser, but practically expensive." To this statement I beg to reply, that among those who use it largely and continuously at, for instance, public departments, Condy's fluid has quite a different reputation as regards cost. In support of this assertion of mine I will quote the following passage from a report to the Vestry of Chelsea by Mr. Alder, the Sanitary Inspector of the Parish:—

"At my suggestion Condy's fluid, during the last three months, has been applied to the purification of the public urinals, which are twenty-one in number, instead of the chloride of lime previously in use. Not only has the cost of keeping them sweet thereby been reduced from three shillings to one shilling each per week, but the superiority of the results has been most remarkable."

Further on in his report Dr. Procter says that it is doubtful whether Condy's fluid "can be relied upon alone for the perfect removal of living matter," basing this remark on some experiments of Mr. Crookes' connected with the cattle plague inquiry. It appeared the latter gentleman had found that when "cheese mites in a foul solution" were

treated with chlorine, the foul matter of the solution was acted on more rapidly than the mites. But it is precisely this rapid and preferential action on offensive decomposing matter, which constitutes the true characteristic of real disinfectants, rather than efficacy in destroying cheese mites and the like. Were mere power to deprive the latter of life to be made the criterion for determining the disinfecting properties of substances, many bodies which otherwise could never be suspected of belonging to the class of disinfectants would be ranked high among them; such, for instance, as tannin and quiniæ, which, according to Herr Binz, are most energetic poisons to infusorial life. It would seem to me, that to kill such organisms without destroying the foul matter which forms their nidus would only serve to provide additional material for decomposition, whereas the destruction of the nidus would of necessity lead to the ultimate death of the creatures whose pabulum it was. There is every reason, moreover, to think that those minute living beings, instead of being causes of the decay of animal substances are but attendants on decomposition. Indeed, Liebig long ago showed (*Chem. of Agric.*, p. 403) that, like confervoid vegetation in water, they are, during their process of life and propagation, sources of the purest oxygen gas; as Pasteur has since (*Comptes Rendus de l'Acad. des Science*, Feb. 17, 1863) succeeded in proving that "the mycoderms, which are concerned in fermentation, have the property of imparting activity to oxygen, and thus of carrying to their ultimate results the decomposition of decaying organic matter, and that in this way they are powerful disinfectants."

It is evident, then, that it is the foul nidus in which low orders of living organisms develop themselves that are to be feared in connection with infection or contagion, and not those organisms themselves. The rise, progress, and decline of such foul matters, are of course due to chemical processes. That the progress of those more specific matters which constitute infection is also under the control of chemical affinity would seem to follow from the experiments of Dr. B. W. Richardson, by means of which he obtained from diseased pus an active morbid principle capable of entering into various combinations like purely chemical bodies. It is worthy of remark, that while Herr Binz ranks the mild organic acids like the acetic, as well as the strong mineral acids among the more certain poisons to infusorial life, Dr. Richardson was able to precipitate, unimpaired in activity, his morbid pus principle from combination with acids.

It must be deemed a circumstance very favourable to the claims of Condy's fluid, that while its power in neutralizing foul and offensive products is admitted on all hands, Herr Binz has classed permanganate of potassium, its active ingredients, among the substances which have the property of acting as poisons to infusorial life.

Finally, Dr. Procter says:—"Mr. Condy diffuses his fluid through the air, mixed with the vapour of water, a plan I have not found of equal efficacy to the preceding." Diffusion in the atmosphere by means of aqueous spray, is only one of many ways of applying Condy's fluid. The vaporizer or spray-producer instrument is undoubtedly a valuable mode of bringing fluid substances rapidly in contact with the air. But it will not be denied by those who have taken the trouble to use Condy's fluid for aerial purification, according to the directions which usually accompany it, that that preparation really exerts a most remarkable purifying action on the atmosphere by exhalation of oxygen from solutions of it exposed in stationary vessels. One of the most usual methods of procuring ozone or allotropic oxygen is by acting on Condy's fluid (solution of permanganate of potassium) by sulphuric acid. It is consequently obvious that this fluid is a good available source of oxygen—"the great purifier of nature and great natural disinfectant," to use the words of Dr. Procter himself, and that by its use the wide process of natural oxidation can be imitated by artificial means. With the view of placing within reach of the public additional artificial means of disinfecting by Condy's fluid, I have been in the habit, for some considerable time, of appending the following directions:—"To act rapidly on the air, use the diluted fluid with 'Condy's Ozoniser' or other spray-producer. By the addition to the strong fluid of sulphuric acid, ozone is evolved. By that of hydrochloric acid, pure chlorine gas is disengaged."—Yours obediently,

H. B. Condy.

Battersea, London, January 3, 1868.

MEDICAL FEES IN JERSEY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—By inserting in your journal the following statement, you may perhaps rescue some unfortunate stranger from a similar fate.

In August, feeling ill, I sent for Dr. —— (residing in the town). Becoming worse, I requested a consultation, and proposed one of two medical men of high reputation here, both of whom Dr. —— declined meeting, but wished instead to have a Dr. ——. He came, and thirty-nine consultations ensued. On the 29th of September, they pronounced me recovered, and discontinued their visits. Not being satisfied with the state of my health, I consulted another medical man, and on October 13th took apartments at St. Aubin's, to be nearer him. In a fortnight I was so much better, that I returned to my house "Le Hagnais," St. Clements. Having a relapse, I again went to St. Aubin's on November 15th. On Friday, November 22nd, I was arrested at the suit of Dr. —— for £27, no bill being even then presented, or payment previously demanded, although Dr. —— had been requested to send in his account, which he declined doing until the usual time, Christmas. Being very ill and confined to bed, I was kept in ignorance of this affair. My wife offered to pay the £27, which the sheriff's officer refused to receive, unless the costs of the arrest were also paid, or perhaps, if Mrs. Collins would call and ask Dr. ——, he might forego the costs." This mode of proceeding my wife indignantly declined to adopt; and I was saved from being dragged to gaol by the decided interference of my medical attendant. The money was immediately lodged in my advocate's hands, who, on a bill of items being presented, (which I had no power of disputing) paid it the same day, disallowing costs. My baby's vaccination cost £1. 5s., Dr. —— having previously attended my wife in her confinement, and charged in proportion. On Saturday, November 23rd, next day, my effects were arrested at Le Hagnais, at the suit of Dr. ——, the consulting coadjutor, no bill having been previously furnished, or payment demanded. This arrest was immediately settled by my advocate.—Yours, &c.,

F. P. Collins.

Jersey, Nov. 27th, 1867.

A note, similar to the above, was sent by my husband to one of the Jersey papers, but was not inserted. The only difference is, that in the original letter, the names of the medical practitioners were given in full. Louisa Collins.

Sir,—I can attest the truth of Mr. Collins's statements. He had a severe attack of bilious fever and jaundice. Nov. 22, he was improving, and I felt confident of his recovery. Unfortunately, on the 24th he became acquainted with these arrests, from this shock he never rallied, and, in full possession of his intellects until nearly the last, he died Dec. 1st.

My object in addressing you is threefold—

1st. To induce the professional men of Jersey to declare their approval or disapproval of this method of coercing patients.

2nd. To caution strangers against the "perils that environ" a visit to, and a residence in, Jersey.

3rd.* To stimulate the States of Jersey (to pile Opa on Olympus were easier) to expunge from their code a law which does not exist in that of any civilised country, nor (saving Jersey) in that of any barbarous one.—Your obedient servant,

H. C. Attenburrow, F.R.C.S.

Jersey, Dec. 4, 1867.

MR. PHELAN ON THE DUBLIN LYING-IN HOSPITALS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—I beg to trespass on you in reference to some allusions made by Dr. Sinclair to me in the "Correspondence" which he has published in your issue of the 18th December last.

Dr. Sinclair intimates that in the paper which was published in the February number of the *Dublin Quarterly Journal of Medical Science and Medicine*—1. I made an "attack on the Rotundo Lying-in Hospital"; 2. That I "brought forward the statistics of the Rotundo, to prove the baneful influence of lying-in hospitals, and *excluded* those of the Coombe in a *remarkable manner*"; and 3. "That I made it appear that the Rotundo is chargeable with increasing the immorality of the city."

* Under the law of Jersey, one person can arrest another by swearing before a magistrate that a sum above £10 is due to him. Persons holding property in Jersey are exempted from the action of this law.

I deny that I made any attack on the Rotundo Hospital. I knew that there had been for years an unusual mortality in it, and, in the cause of humanity, I published *official* documents, *that had been before published*, to show that mortality to have been the case. I supplied the paper, in question, from a deep feeling of personal duty. I expected that the publication of it would be likely to be of use, and I think it will. Witness Dr. E. Kennedy's letter.

I also deny that I excluded the statistics of the Coombe Hospital, *in a remarkable manner*, or in any manner. Every return which I gave respecting each of these hospitals was supplied by the authorities of these institutions, verified by the respective registrars; nay, these returns or data have been long known to the authorities of the hospitals, and yet none of them have complained that they are not correct. Dr. Sinclair does not point out a single error (though he has had several months to examine them) in the statistics which I have given as to the Rotundo and Coombe Hospitals.

I also deny that there is a word in my paper charging the Rotundo or its authorities "with increasing the immorality of the city," and Dr. Sinclair has not quoted any. I quoted Dr. Shekleton's evidence before the Commons' Committee to show that there was no check on the admission of unmarried women; and I also quoted an extract from the hospital charter to show that the parties intended to be relieved were "the wives of persons whose *husbands* were poor, or were the widows of such husbands, or the wives and widows of soldiers and sailors." This was not charging an increase of immorality.

I shall not notice Dr. Sinclair's personalities and puerilities. The question is, has the mortality in the Rotundo, as in other large lying-in hospitals, been occasionally much increased by the occurrence of puerperal fever; and if it has, how is that mortality most likely to be lessened? If Dr. Sinclair and his seven associates consider this question practically and coolly, they will be attended to, and will do much good; but they cannot prevent the subject from being discussed, and surely no one that reads Dr. Telford's account of the mortality in the Rotundo, in April, 1866, will say that there is not room for discussion and consideration. I know, *officially*, of the mortality that occurred during the winter and spring months of 1866 in the Rotundo, though as an official I would not publish it; but when one of the assistants gave it, I could have no hesitation in making use of Dr. Telford's letter, which shewed a greater mortality than ever I believe occurred, in a given time, in that institution.

DENIS PHELAN.

10th January, 1868.

Gleanings.

ST. ANDREWS UNIVERSITY.—From a recent return showing the number of graduates in medicine of the University of St. Andrews, from the year 1805 (inclusive) to the 1st of January, 1863, it appears that they amounted to 2510; and that their places of residence, as given at the dates at which the degrees were obtained, were as follow:—Resident in England, 1420; Scotland, 268; Ireland, 167; British Colonies, 202; places of residence not given, 453. Of those graduates of the University of St. Andrews who obtained their degrees before the 1st of January, 1863, and who are not included under clause 30 of the Representation of the People (Scotland) Bill, the number recorded as being alive in 1867 was 1342, of whom there were, resident in England, 1001; Scotland, 126; Ireland, 85; Colonies, army, and navy, 130.—*London Scotsman.*

ROBERT WATSON.—Some interesting particulars of this, in many respects, remarkable man formed the subject of a paper read before the Society of Antiquarians in Scotland. He was, it appears, born at Elgin, probably in the year of Culloden. In his early days he is said to have fought for independence in America, and on his return to Scotland to have taken the degree of M.D. He then went to London, where he was associated with Lord George Gordon, became president of the Corresponding Society, and after being tried at the Old Bailey for conspiracy, he escaped to France, and afterwards went to Rome. While here he discovered a large mass of papers, which belonged to Cardinal Yorke, regarding the rebellions of 1715 and 1745. These were subsequently sent to George IV. as a present from Pope Pius VII., and became known as the Stuart Papers. At one time he was made principal of the Scots College at Paris by the Emperor Napoleon, an office which he held for six years. In November 1838, Watson brought his singular and eventful career to an end by strangling himself in a tavern in London. At the inquest he was said to have been aged 88, but he was more probably 92; and if so, as the Bishop of Brechin remarked, "the case of a suicide at 92 is a fact unparalleled in the annals of sorrow." When at Rome, Watson became known to Professor Voghel Von Toghelstein, formerly Court painter at the Court of Saxony, now residing at Munich. This was about the year 1817, and at this time the portrait now presented to the Museum was made; but the sudden departure of Watson to Fontainbleau in search of other documents prevented its completion. He was the writer of some books. One is "Life of Lord George Gordon," another is called "An Account of an Extraordinary Disease of the Skin and its Cure," and a third was "An Answer to Work of Burke on the French Revolution." Of the first, the Bishop of Brechin writes: "It is full of fierce denunciations of kings and priests; and is an interesting specimen of that fierce and trenchant invective which was so popular among the sympathisers with the earlier stages of the French Revolution."—*London Scotsman.*

DR. LIVINGSTONE.—Hopeful news has reached us regarding the fate of Dr. Livingstone. A letter from Zanzibar, dated the 1st of October, says that an Arab ivory trader spoke of having seen the great explorer, attended by 13 followers, to the west of Lake Tanjamgika. On being shown an album of photographs, he pointed out that of Dr. Livingstone, saying, "that is the man."—*Bombay Gazette*, Dec. 14.

Medical News.

EDINBURGH UNIVERSITY.—James H. Stirling, Esq., M.D., LL.D. (Edinburgh), author of the "Secret of Hegel," and translator of "Schwegler's History of Philosophy," and author of many other critiques on philosophy, is candidate for the chair of Moral Philosophy, now vacant in the university by the lamented death of Professor Macdougall.

UNIVERSITY OF LONDON.—The following are lists of Candidates who passed the respective examinations indicated:—

B. S. EXAMINATION.

Pass Examination.—Marcus Beck, University College; William Edward Berridge, St. Bartholomew's Hospital; John Reuben Bathurst Dove, London Hospital; Henry Greenway Howse, Guy's Hospital.

EXAMINATION FOR HONOURS.

First Class.—Henry Greenway Howse, (Scholarship and Gold Medal,) Guy's Hospital; Marcus Beck (Gold Medal) University College; *John Reuben Bathurst Dove, London Hospital.

*Obtained marks qualifying for Scholarship and Gold Medal.

LIST of Entries in the Branch Medical Council (Ireland), for the month of December, 1867:—

Joseph Todd, Fairy-hill, Dromore, co. Tyrone, M.D. Univ. Edin., 1867, Lic. Fac. Phys. Surg. Glasg., 1867; George Ryan, 10, Westland-row, Dublin, Lic. R. C. Phys. Edin., 1867, Lic. R. C. Surg. Edin., 1867; James Dunne, 17, Lw. Bridge-st., Dublin, M. R. Coll. Surg. Eng., 1867, L. Apoth. Hall, Dub., 1867; William Scott Core, 29, Carlisle-street, Belfast, M.D., Qu. Univ. Irel., 1867; Edward Anderson, 68, Grafton-street, Dublin, M.D., Q. U. Irel., 1867; Lic. R. C. Surg. Irel., 1867, Lic. Apoth. Hall Dub., 1867; James William Fisher, Frankfort-avenue, Rathgar, co. Dublin, M.D.Q.U.I., 1867, M.Ch.Q.U.I., 1867; Thomas John Wilkin, Lisbellaw, co. Fermagh, Lic. R. Coll. Surg. Irel., 1867, Lic., 1867, and Lic. Midwifery, 1867, K.Q.C.Phys. Irel.; Alexander Duke, 8, Frankfort-avenue, Rathgar, co. Dublin, M.D.Q.U.Irel., 1867, Lic. R. Coll. Surg. Irel., 1867; William Albert Paxton, Parsontown, King's County, M.B.Univ. Dubl., 1867, Lic. R. Coll. Surg. Edin., 1867; Edward Joseph Curran, Ennistymon, co. Clare, Lic. R. Coll. Surg. Irel., 1867, Lic. 1867, and Lic. Midwifery, 1867, K.Q. Coll. Phys. Irel; Robert Vickers Fletcher, 6, Harrington-street, Dublin, Lic. R. Coll. Phys. Edin., 1865, Lic. R. Coll. Surg. Edin., 1855; John Harrison Nason, Newtown Lodge, Ballynoe, co. Cork, Lic. R. Coll. Surg. Edin., 1867, Lic. R. Coll. Phys. Edin., 1867; William Geoghegan, Carysfort Lodge, Stillorgan, co. Dublin, M.B. Univ. Dub., 1867; M. Surg. Univ. Dubl., 1867; George Roderick Triphook, Kincora, Dollymount, Dublin, Lic. R. Coll. Surg. Irel., 1867, M.B. Univ. Dubl., 1867; Wm. Henry Charlesworth, Tritonville, Sandymount, co. Dublin, Lic. R. Coll. Surg. Irel., 1867, Lic. Apoth. Hall Dubl., 1867; Richard White, Fever Hospital, Cork, Lic. R. Coll. Surg. Irel., 1865, Lic. Apoth. Hall Dubl., 1866; James M'Ilroy, Lavan Cottage, Ballymoney, co. Antrim, M.B. Univ. Glasg., 1867, Lic. R. Coll. Surg. Edin., 1867; William Tracy Budds, South Infirmary, Cork, Lic. R. Coll. Surg. Irel., 1865, Lic. Apoth. Hall Dubl., 1865; Michael Joseph Burke, 4, Shop-street, Galway, Lic. R. Coll. Phys. Edin., 1867, Lic. R. Coll. Surg. Edin., 1867, M.D., Qu. Univ. Irel., 1867; John Fagan, 78, Donegal-street, Belfast, L.R.C.S.I., 1865, L. 1866, and L. Midwifery, 1866, K.Q.C.P.I.; Patrick Magenis Rice, Millbrook House, Galway, L.R.C.S.I., 1867, L. 1867, and L. Midwifery, 1867, K.Q.C.P.I.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 22, 1868.

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By ARTHUR ERNEST SANSOM, M.D., M.R.C.P.,

PHYSICIAN TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.

(Continued from page 45.)

We come now from negative to positive evidence. Starting with the premiss that certain diseases are caused by morbific ferments, and arguing that the influence of these ferments can be annihilated either by their own destruction, or by rendering organic matters incapable of being acted on by them, Professor Polli, in 1857, introduced an agent which he proved, by a long series of experiments, to have a real practical value. I can only record my opinion that his place, as a benefactor to science and to humanity, should be among the very highest. The agent or agents which Professor Polli introduced consisted of the sulphites and hyposulphites of the alkalis and alkaline earths.

It was found that animals could, without any apparent ill effects, swallow and absorb large doses of the sulphites. It was then observed that when the animals were killed they long resisted the putrefactive process—that whilst an animal killed under ordinary circumstances exhibited rapid and marked signs of putrefaction, an animal which had previously absorbed doses of the sulphites betrayed no sign of putrefaction whatever. Another series of experiments, and in this series three hundred dogs were the bases of the deductions, showed that the sulphites exerted a prophylactic and curative power when septic poisons were introduced into the economy.

Then, as regards the human subject. It was found that the stomach would tolerate large doses of the sulphites of soda or magnesia. They were tried in the various eruptive fevers, intermittents, typhus, typhoid, pyæmia, puerperal fever, dissection wounds, malarial infection, &c. The records of cases treated in this way show an extraordinary amount of success. Dr. Polli states—"I published my first memoir on this subject in 1861, and since that time one hundred and fifty-eight papers have been published in answer to my call; and, with the exception of five or six containing some criticisms on my labours, all the remainder confirm, in the strongest terms, by many hundreds of detailed observations, the value of these remedies."[1]

I can endorse this statement from my own personal experience. I have employed the sulphite of soda in the eruptive fevers, in malignant sore throat, in diphtheria, as well as in cholera and choleraic diarrhœa. In measles I have used it in a number of cases, always with apparent success. In scarlatina I have employed it, both internally administered and as a gargle; its efficacy in anginoid symptoms has been marked. In diphtheria I have employed it in like manner in three cases. These were all extremely severe; all but one recovered, the fatal case being a child of two years, to whom none of the sulphite was for twenty-four hours, by a mistake in the nursing, administered. In a case of small-pox the effect seemed to be wonderful. The face was completely covered with pustules, the drug not being administered till the pustular stage had arrived. There was extreme prostration, the pulse was, on November 7th, 1866, 104; the sulphite of soda, in scruple doses, was assiduously administered every four hours, and in two days the signs of danger passed, the pulse falling to 76 on November 9th. I notice that Dr. Nichol, in the *Nashville Journal of Medicine and Surgery* for August, 1866, testifies to the efficacy of the sulphites in small-pox. For cases illustrating the value of the sulphites in cholera and choleraic diarrhœa, I can refer not only to my own volume, but to the narrative of cases in my first communication to your columns. The cases there mentioned were all treated by the sulphite of soda method, and all recovered.

If it be granted that the sulphites are useful in the infecting diseases, what is their *modus operandi?* In my answer to this question I am forced to differ from Professor Polli, who says, "these salts do not act as poisons towards the several morbific ferments. . . . They do not kill the catalytic germs of the organic poisons; but they re-act on the material components of our own organism, rendering it, by their presence, incapable of being acted on by these catalytic germs."[2] The mode in which Polli supposes they affect the "fermentable stuff" of the organism is a process of deoxidation.[3] I have before said that sulphurous acid and the sulphites are not mere deoxidizers, but that they have a special influence in arresting the vitality of low organisms. Moreover, there are many arguments against Polli's hypothesis that the sulphites

1 *British Medical Journal*, Nov. 16, 1867.
2 *British Med. Journal*, Nov. 16th, 1867.
3 See *Medical Times*, May 5th, 1866.

act not on the ferment but on the pabulum, wherein the ferment undergoes development. In the first place what does physiological chemistry tell us of concerning the action of sulphites in the economy? Dr. de Ricci says, "Animals after having been saturated with sulphites were killed, and every portion of their body, solids and fluids, gave, on examination, unquestionable proof of the presence of the sulphites employed. These experiments seemed to prove that when sulphites, whether alkaline or earthy matters or not, are introduced into the stomach of a living animal, they may be absorbed and circulated *as such* through the organism."[1] Furthermore, "Dr. Polli found in men as in dogs, that they are not ordinarily decomposed in the stomach but pass unchanged into the blood, or, at least, appear in a brief period unchanged in the urine, and only after a while as sulphates."[2] From these facts alone it may be concluded that the deoxidizing power of the sulphites must be limited indeed, for that power could be strictly determined by their transformation into sulphates. Furthermore, if the efficacy of the sulphites depended on their deoxidizing power over the fluids of the organism, consider what an enormous quantity would be required to effect such an object! What does anology teach us? A trace of sulphurous acid or an alkaline sulphite will arrest the fermentation of a large quantity of saccharine material. The same quantity would not suffice to deoxidize the smallest fraction of this material; therefore, its efficacy must lie in some other quality than its power of deoxidation. Analogy tells us that it has a peculiar power, as I have before stated, of arresting vitality; this power is catalytic not chemical, and finds its chief exemplum in carbolic acid. There is nothing antagonistic to reason in the conclusion that substances which are perfectly harmless in the case of a high organism should be fatal to a lower organism. Common salt, among a multitude of others, presents an instance in point. I think, therefore, we cannot fail to come to the conclusion that the sulphites are readily absorbed by the higher organisms—that they circulate in the economy for the most part unchanged—that they exert a peculiar power, not upon the pabulum of the body but upon organized particles which may exist within it; and that in virtue of this septicidal power they manifest those prophylactic and curative effects which both experiment and experience have proved them to possess. We now arrive at

Proposition D.—That the germs of cholera are capable of destruction within the living body.

It may seem that this proposition admits of an easy discussion, for, according to our former conclusions, the argument might stand thus: Diseases which depend on morbid germs are to be successfully treated by sulphites or such-like antiseptics. Cholera is a disease which depends on morbid germs; therefore cholera is to be successfully treated by sulphites, &c. But this conclusion is not at this time justifiable; it can only be said that an *á priori* case has been made out.

Many circumstances may militate against the success of a treatment, though its principle may have been satisfactorily enunciated. The virus of cholera may induce such rapid effects that remedial agents of sufficient power may not be capable of withstanding it in time; or the poison may have a long period of latency, which no symptom may betray until its hold on the body has been fatally strong; or it may have a more intense power of proliferation and diffusion throughout the body than the poisons of those zymotic diseases heretofore mentioned. Or, perhaps, the sulphites which have been shown to be efficacious in other diseases, may not be powerful enough, or administrable in sufficient quantities, to kill the germs of cholera. It may be, therefore, that though antiseptics can destroy the virus of cholera outside the organism, internally administered they may be powerless. It was greatly thus in the case of cattle-plague; a mass of evidence proved the antiseptic power of carbolic acid; but the internal administration, though apparently in some cases successful, was not attended with an advantage proportionate to the value of its external employment.

Professor Polli did not claim for the sulphites the probability of a success in cholera. "Dr. Polli does not venture to assert that they will prove available in cholera or the plague; but he thinks there is reasonable ground for concluding that they will be highly useful in prophylaxis, in destroying the fermentable material on which the malignancy and fatality of these pestilences chiefly depend, and thus, render an inevitable attack mild."[1] This opinion, however, is founded on the hypothesis that the sulphites act, not upon the ferments, but upon the "fermentable material"—a hypothesis which I have considered unsound. The antiseptics act directly on he tvirus. It behoves us, as we have done in the case of other zymotic diseases, to take the evidence afforded by actual cases.

I have related in my book on cholera, cases in which the treatment by sulphite of soda was successful. All those cases related in my former communication to these columns on the Cholera Poison, were treated by the sulphites, and they seemed to show unmistakably the advantage of the mode of treatment.

Carbolic acid, internally administered, has been testified, by many observers, to have been successful in cholera during the recent epidemic. I find that so far back as December 17th, 1862,[2] Dr. Godfrey advocated the administration of carbolic acid in cases of gastric irritability, especially when produced by miasmata or sewerage exhalations; he anticipated much good from it in the treatment of cholera.

The difficulty which has been urged against the antiseptic treatment of cholera, especially by those reviewers who have noticed my book, has been that the agents administered, could not be sufficiently rapid in their action to neutralize the cholera-poison. We know, however, that the sulphites are like other salts of alkalis and alkaloids very rapidly absorbed and circulated throughout the organism—a few minutes sufficing for their diffusion throughout the economy. The argument, therefore, against the sulphites would lie not against the *rapidity*, but the *sufficiency* of their action.

On the other hand, carbolic acid is, I think, proved to be the most powerfully septicidal agent known. The difficulty in this case is its deficient absorbability. It is undoubtedly an irritant, as may be at once proved by applying a little of it to the skin—the stomach will not tolerate doses of more than two to five minims, and of this amount it is probable that only a small proportion is absorbed into the blood.

The great desideratum, in my opinion, has been an agent which should supply the qualities of the rapid diffusibility of the sulphites, with the potential efficacy of carbolic acid. This desideratum I believe now to have been supplied. Some months ago I saw, at the house of my friend Mr. Crookes, a specimen of a compound salt of sulphuric and carbolic acids with potass. I determined to pursue the method of investigation which thus opened out to me, and I have now succeeded in producing the compound salts of potass, soda, ammonia, and magnesia. I have found them to possess every quality which could be required of them, and a record of my practical experience with them I only defer to a future time.

I trust that I have now adduced sufficient evidence to show that my hypothesis of cholera-germs is not a "pure assumption," but a justifiable induction from a large mass of well-authenticated facts. I do not forget, however, that my task is even yet incomplete. I have to attempt to do, what is difficult in respect of any disease and any morbid agency—"to demonstrate each link in the physiological chain of causes by which the phenomena in question are produced." I shall not shrink from the task if space be accorded me on a future occasion.

1 *Glasgow Medical Journal*, Oct., 1865, p. 297.
2 *Medical Times*, May 5th, 1867.

1 *Medical Times*, May 5th, 1868, p. 117.
2 *Medical Circular*.

ON A CASE OF GASTROTOMY FOR EXTRA UTERINE PREGNANCY.

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(The Substance of a Paper read at the General Session of the St. Andrews Graduates' Association.)

THE subject of the case was a woman, æt. 30, admitted into St. Mary's Hospital, Manchester. She had not menstruated for eighteen months previous to her admission into hospital. She stated that she considered herself in the family-way, as she experienced the usual feelings which attend pregnancy, and at the end of what she supposed to be the ninth month of utero-gestation she had all the symptoms of labour. She said that she had frequently felt the child. An examination of the abdomen showed it enlarged: on the right, extending upwards beyond the umbilicus and downwards towards the iliac fossa, and laterally a little beyond the mesian line, was an irregular ovoid tumour, exceedingly sensitive on pressure or manipulation. On examining the most prominent part of the tumour by palpation a decided crepitation, produced by the overlapping of the cranial bones of a fœtus, could be distinctly made out. On examination per vaginam the os uteri appeared a little higher and more to the right than normal; it was small and admitted the uterine sound to the extent of three inches, the os aud cervix uteri were normal, the uterus not so mobile. On the right side of the pelvic cavity, a hard resisting tumour could be felt. She had hectic, night sweats, vomiting, inability to take nutriments, and a small, weak, and frequent pulse. A consultation was held, it was decided to be a case of extra-uterine pregnancy, and gastrotomy was determined upon. Chloroform being administered by Mr. Runcorn, House Surgeon to the Hospital, I commenced the operation by making an incision four or five inches in length over the most prominent part of the tumour until the cyst was exposed. This being opened, a fœtus compressed, doubled upon itself, and bathed in several ounces of dark puriform, offensive matter was found to occupy its cavity. The child—a male—was at once removed. There was no vestige of the placenta. During the opening of the cyst no hæmorrhage occurred, its cavity was carefully sponged, and the external wound united by sutures and plaisters. A pad and roller completed the dressing, and the patient was put to bed. Four hours afterwards her pulse was 130, and in the evening 140; an opiate was given at bedtime, and she had some little sleep during the night. In the morning of January 21st she appeared to be sinking, and, notwithstanding the administration of diffusible stimuli and nutriments, she died about twelve A.M.

Post-mortem Examination.—The uterus was somewhat larger than a healthy multiparous organ in the unimpregnated state. The os uteri was in a perfectly healthy condition. The left fallopian tube and ovary were normal, with the exception of being bound by bands of false membrane to the back of the uterus. The fallopian tube was nearly throughout impervious. The left ovary was flattened and shrivelled. The walls of the cyst were formed exclusively by the expansion of the right fallopian tube. The parieties of this cyst varying in thickness from ¼ to ½ an inch, had contracted firm adhesions, below, to the pelvic fascia, vessels, and nerves; externally, to the caput coli, ascending and transverse colon, and to the ilium, two inches above the ilio coecal valve. At this part, the sac itself was firmly bound to the ilium. It was also *firmly* bound to the ascending colon. It occupied a transverse position in the pelvis, its length being about eight inches, its breadth seven inches. The interior of the sac was rough, not unlike that of the deciduous lining of the uterus. There existed no mark by which the site of the placenta could be ascertained. There was no communication between the cyst and the cavity of the uterus. A fine probe could be passed into the right fallopian tube for about an inch, there was no trace of the right ovary.

Remarks.—I have brought this case before the Association, not solely on account of its rarity, but because it suggested to me to collect, in a tabulated form, as far as I could, all cases of extra-uterine pregnancy wherein the operation of primary gastrotomy has been performed. This tabulation, indeed, has already, to some extent, been effected by the labours of Mr. Jonathan Hutchinson, but I have been able to increase to twice its original extent the list published by him in the *Medical Times* and *Gazette* of July 1860. These cases fully testify to the advisability of performing the operation in all conditions of the system, where the powers of life are fast sinking, and in which nature is making no effort to get rid of the fœtus either by suppuration externally or through an opening into the vagina or bowel. I have not thought it desirable to include in my table, cases of what Mr. Hutchinson very appropriately calls secondary abdominal section where ulceration has already been established, and in which the operator merely enlarges a breach previously commenced by nature. Out of the thirty-one cases tabulated, I find that fifteen terminated favourably to the mother, being nearly fifty per cent. In three cases, the children were saved. In one instance only, both mother and child survived, and this remarkable case acquires additional interest by the spontaneous expulsion of the placenta. The attempts that have been made with the view of saving both mother and child by gastrotomy have been signally unsuccessful.

Case 20 deserves a passing remark from its being one of twins. In the preceding pregnancy, delivery had been effected by the Cæsareean section, and the rupture in th uterus was discovered coincident with the line of incision which had been made during the Cæsarean operation.

In my own operation, as mentioned in the report, not a vestige of the placenta remained. I feel disposed to say, that had that not been the case, and the placenta been easily removable, I should have extracted it, thus removing an additional source of irritation. I wish also to make one remark on the question which was raised by Mr. Spencer Wells in November, 1860, in a discussion on Mr. Adams's paper on "Extra Uterine Fœtation" at the Medical and Chirurgical Society, as to the propriety of the removal of as much of the cyst as can be safely separated.

In my own case it would have been almost impossible, from its numerous and firm adhesions to the viscera, pelvic fascia, and nerves. If, however, another case were to present itself to me where the cyst was not very adherent, and the adhesions could be easily separated, I should be disposed to remove as much of it as I could without too great disturbance of neighbouring parts, for the reason already given for the detachment of the placenta—viz., because it would remove an additional source of irritation after the operation.

On the whole, a careful consideration of the recorded cases irresistibly points to the conclusion that gastrotomy may fairly rank among the legitimate operations of surgery, the proportion of successful cases being nearly fifty per cent

SURGICAL COMMENTARIES:

INTENDED AS A DIGEST OF THE AUTHOR'S PRINCIPLES AND PRACTICE, AS ILLUSTRATED BY THE MORE IMPORTANT SUBJECTS OF SURGERY.

By GEORGE MACILWAIN, F.R.C.S., Etc.

AUTHOR OF "MEDICINE AND SURGERY, ONE INDUCTIVE SCIENCE;" "THE UNITY OF THE BODY;" "DISEASES OF THE MUCOUS CANALS OF THE BODY;" "STRANGULATED HERNIA;" "LIFE OF ABERNETHY," AND OTHER WORKS.

NO. XII.—DISEASES OF JOINTS.

THERE are probably no cases presented to surgeons which are more exacting as regards the highest requisitions, both from the patient and surgeon, than the more serious disease of joints.

These requisitions, however, given, there are no diseases

which more triumphantly illustrate the extensive benefit that scientific surgery is capable of conferring on mankind.

Many of these affections are insidious in their approach, enduring in their continuance, painfully slow in their reparative processes, and though by no means always necessarily so, too frequently result in loss of limb or life. When I say by no means necessarily so, I am not supposing that the fault is always in the surgeon, or in the patient, but simply that from some circumstance or other, all the requisitions of proper treatment are either negligently or imperfectly carried out, or altogether wanting. In relation to their insidious character, some of the most serious affections commence with very little, almost no pain, unless in particular motions, or on some point of pressure, so that sometimes a disease has made considerable progress before much attention has been paid to it, and this, though it applies to patients more commonly, has sometimes lulled the vigilance of surgeons also.

Under whatever aspect they are presented to us, affections of joints should always be regarded as belonging to a class of serious diseases. In the first place, even when the result of direct injury, and therefore not necessarily connected with any constitutional disorder impeding the necessary reparative processes; still, their organization renders these reparative processes very slow, being easily impeded by small disturbances, whether constitutional or local. Again, independently of any avoidable circumstance inducing it, the constitution vividly sympathizes with injuries of these parts. There is often an amount of general disturbance which (so to speak) seems out of proportion to the local injury. Then, the occurrence of disease in these structures (independently of any direct injury) is, according to the laws regulating the sites of disease, always a *primâ facie* case, declarative of constitutional disorder; and although in many cases we see attempts to confine the diseased actions to puriform or other effusions, into the cellular tissue round the joint, yet a very little neglect soon induces deeper seated disturbance.

Diseases of joints in situations where they can be observed, seldom occur without some evidence of an attempt to determine the actions to the surface; feeble, indeed, in too many instances, and accompanied already, in bad cases, with more deeply seated complications. But whether we consider the phenomena of gout, scrofula, the various affections of joints, even those which commence in the deeper seated structures, or those cases of lumbar abscess (which, like Mr. Abernethy's first cases, occur without any disease of the vertebra), we almost always observe, *at the commencement*, an attempt to determine to the surface, and where the situation enables us to judge of it, to the cellular tissue. Even in gout, which is ultimately so destructive, it is interesting to observe how, in many cases, a naturally strong constitution, however injured by luxurious or intemperate indulgence, will strive to determine the actions of deposition to the surface of parts affected.

Diseases of joints, however, when without any external appearances, are generally not difficult of detection. If there be nothing else, there is always sufficient pain, tenderness, or uneasiness in motion (usually aggravated by bringing the surfaces of the joint in contact) sufficient to induce caution, and that generally prevents any serious mistake. It is, however, by no means a trifling error if you were to confine a patient to a sofa or bed unnecessarily, and yet there are certain obscure disorders of a limb affecting the joint, which has sometimes misled eminent surgeons. To impress this, I will relate a case which occurred to me a very few years after I commenced practice. A lady had consulted me for a trifling pain and redness on the tarsus, for which she was desired to rest and foment it. As she was of fair complexion, thin skin, and apparently of a strumous constitution, I paid attention to her general health, and in two or three weeks her foot was all right again.

About three months after this I was informed that she was again ill, and that her guardians had taken her to a very eminent surgeon, who had told them that she had a disease of her hip. I could, of course, say nothing, but that there was no evidence whatever of such disease when she was under my care. As I could not, of course, see the patient without being sent for, I communicated with the surgeon to whom she had been taken, who told me that the lady had distinctly told him that when she consulted me the disease was in her foot. "But now," said he, "if you were to see her you would see that there is disease in the hip." In a few months this lady sent for me, having become a great deal worse in health, and more pain in the limb; but on the most careful examination, I could not satisfy myself that the signs on which the surgeon had depended justified his opinion. I therefore requested her to allow me to meet him.

This she positively declined to do, but she would allow me to meet any other surgeon. I accordingly consulted Mr. Abernethy. I informed him that the question was whether there was any disease in the hip, but I did not tell him what opinions had been formed by either party. He accordingly examined the limb with great care, but with great gentleness, and then proposed to retire. I said, "No, sir, that is unnecessary. I would rather that you said at once what is your opinion." "Well, madam," said he, "I cannot discover that there is any disease in your hip." He further said that there were many cases of disturbances in the nerves of limbs, which were, he believed, dependant upon a disturbed state of the general health, and he should recommend a treatment having for its object to improve her general condition. The lady was also allowed to get up to take gentle exercise, and, with other attentions to her general health, in a few weeks had quite recovered.

It is, no doubt, very undesirable to confine a patient unnecessarily, as the health is almost certain to suffer. It is, of course, of inferior consequence compared to that of postponing unnecessarily the rest and quiet necessary to the proper treatment of incipient disease. I could relate some lamentable instances where a joint has been doing as well as could be desired, wherein the premature abandonment of the necessary measures had led to the loss of limb and life in cases where I feel certain such consequences might have been easily averted. I am bound to say that, as regards my own observation, more unnecessary amputations have been performed for diseases of joints than for almost any other disease, and I have known some of the most formidable cases brought to a favourable termination, in which the limb had been regarded as incurable by other surgeons, and by myself also.

As, therefore, it is a most painful reflection that any operation which deprives a patient of a limb should have been performed unnecessarily, no pains should be spared to carry out the necessary treatment *in all its details.*

Now, as to treatment, the thing that is, of all others, the most important, is to keep the joint in an *absolutely quiet condition*, merely resting the *limb* on a bed or chair will do nothing in serious cases. It is essential that the surfaces of the joint should be prevented from having any motion on each other. The joint should be so secured by splints, as to be essentially as one piece, so that there be no motion between the opposing surfaces.

This great improvement is one of the numerous obligations we owe to Abernethy who, very early in life, taught it in his lectures and practice. Nevertheless, many years elapsed before the practice became general or even much known. It is only, I think, in the second or third edition of Sir Benjamin Brodie's work "On Diseases of the Joints" that the application of splints is recommended.

Abernethy had at that time been teaching it for certainly nearly thirty years, and I had myself been enforcing the great importance of it after him for several years in my clinical lectures. I cannot convey more strongly the importance I attach to thus procuring absolute rest than by saying that I regard it as of more value than all other measures put together, provided only that no irregularities are permitted which are avowedly hostile to the general health.

There is, however, no occasion for this neglect. Rest should, of course, be conjoined with everything calculated to remove any disordered condition of the various organs, which, if not corrected, will be certain to retard, impede, or altogether prevent the processes of repair.

It will be necessary to materially modify the general treatment in different cases where, although the disease may differ as to its nature and the structures in which it is seated, there is the common effect of a certain absence of the usual amount of air and healthy exercise. There are patients who will sustain and even require a generous diet with moderate, and cautiously, additions of wine or beer; but, in my experience (as the rule), patients do better without *stimuli* so long as they are supplied with a sufficient quantity of wholesome and nutritious food, by which I mean meat, bread, and thoroughly well-cooked vegetables. Still, as regards general treatment, I know of no cases in which the necessity is greater for the surgeon to add to his general experience, however great, the careful observation of the *peculiarities* of the individual.

I am quite certain that diseases pathologically identical as regards the changes in the structures affected, are connected and dependant on states of constitution, which, for all practical purposes, must be regarded as different from each other in relation to the nervous system, and the primarily affected organ, however much they may agree in the common result of all disorders—viz., disturbed or deficient reparative power.

It is the saliency of this idea (I mean deficient power), I fear, which has led many surgeons to prescribe or admit the use of stimuli in cases where they have been inappropriate, and which I have often seen followed by the worst possible results. Nothing in serious cases is so *certainly* destructive as stimulants in cases to which they are *inapplicable*. If you increase action without increasing power, you are only (to borrow a simile) feeding the lamp with oxygen, as it were, and rendering the exhaustion of vital force more certain and more rapid.

I have known a case in which a patient was going on as well as could be desired, and where stimuli were admitted only in very measured quantity, in whom a change in position led to the more liberal use of stimuli (in this case champagne) under an eminent surgeon. The result was that the disease immediately progressed, and, in about twelve months, led to the amputation of the limb, the patient dying the next day.

I am desirous to impress my conviction of the necessity of a more discriminate employment of stimuli, because, I believe, it was never more necessary than at the present time; stimuli seem to be in fashion, and absurdly as such a thing sounds, there is no doubt that occasionally a habit prevails in the treatment of disease, which renders it difficult to administer remedial measures with that discrimination which is the very basis of judicious, as contrasted with routine treatment.

I have known patients call that a lowering treatment in which a surgeon has allowed a moderate quantity of good wine; and been told, that a man was put on a starving diet, who was allowed to eat mutton, beef, and poultry, with good potatoes, without any limitation but his appetite.

A wealthy patient, who was allowed a similar diet, with the addition of game, if not high, as the phrase is, but who was prohibited the use of soup, fish, and salads, said, "why sir, I might as well be in an hospital," he might have said "a great deal better." The sequel of this case was very instructive, what I have sometimes called chronic suicide. He fell a victim to his own requisitions and certain "assentations" in those under whose treatment he was, which in their judgment, of course, were admissible. The details, of the case, in many points instructive, would require too great a digression in this place. As I shall hardly have a better opportunity, I mention here an interesting case which occurred to me many years ago, as it conveys a practical caution:—A young lady had an attack of fever in the country, and when she removed from that, it was found that she has very little, indeed, almost no power of motion in her left leg; on this, she was brought to town for my opinion on the case. The opinion I gave was essentially, that I regarded the case as one of the sequelæ of fever, which was not very uncommon, at all events in a large public practice. I had seen, I thought, several cases in the course of years of the same character; that as to prognosis, I had very little apprehension; that I expected that as she gained strength, she would in time, by attention to her general health, good air, and so on, recover the use of the limb; very eminent practitioners, the one a surgeon, the other a physician, differed materially from this view. They regarded the case as belonging to the class of paralytic affections, and considered the proper treatment would involve a mild course of mercury. As this was, in every point of view, an opinion in which I could not coincide, and as the somewhat strumous aspect of the patient induced me to think her a most unfavourable subject for mercury, I retired from the case; at this time, there was no difference in the limbs whatever. I heard no more of this case, for, I think, nearly two years, when I received a letter from Paris, from the father, written in a very anxious and despairing tone, saying that he would be in London on a certain day, and, with some complimentary mention of my former opinion, that he wished very much to consult me; that two of the most eminent surgeons in Paris had said that the hip was dislocated. As I did not happen to be in London at the moment of his arrival, he consulted two of the most eminent surgeons in London, both of whom concurred as to the dislocation of the hip. The only exception being (if I may call it so) that one of them, the late Sir Wm. Lawrence, said that he certainly had never seen such a case before, but still his impression was that the hip was dislocated. I could not, of course, say what might, or might not, have happened in so long an interval, especially after the treatment to which I had objected. When the patient arrived, I examined the limb very carefully, and then I examined the spine; here, as it appeared to me, lay the true explanation of the case. It did not appear that any of the surgeons had examined the spine, which to me satisfactorily accounted for their not detecting the real nature of the case. The lady had been allowed to walk with crutches, and this had led to a curvature of the spine. When placed in a position fairly to test that point, the limbs were of the same length. The parts, in relation with the hip, were in their right position, and the case became perfectly clear. As, however, I had been formerly a good deal annoyed about the case, I insisted that the father should take another opinion, and in the meantime I showed him on the skeleton what had happened. Well, he chose Sir Astley Cooper, who was still in practice. I ventured to preface his examination by saying—"Now, Sir Astley, you are to say what is the matter with that hip, because, if my opinion is right, the case has been mistaken by four very eminent surgeons in Paris and London. I do not say, sir, that it will deceive you, but I am sure it may, unless you examine it attentively." I gave Sir Astley no hint as to what any of the opinions were. Sir Astley proceeded to examine the limb; having done so very thoroughly, he proceeded to examine the spine, when he said he saw the nature of the case, adding, "there is no fracture, dislocation, or disease in the hip;" the appearances result from a curvature of the spine. He then took a piece of chalk and proceeded to sketch the position of the parts in the same manner as I had showed the father the previous day in the skeleton. I felt certain that there could be no difference between surgeons who would take time to examine all the points of the case, and that was the reason of my desiring that Sir Astley should be particular. On telling him the origin of the affair when I had formerly seen her, I assured Sir Astley that it was, in my experience, no uncommon sequela of fever, and that in time and proper treatment, the limbs, if properly treated, recovered their power. "Why," said Sir Astley, "when I was in the city, I should say a year seldom passed without my seeing three or four cases of the kind."

Few men were more quick in detecting the nature of

this sort of case than Sir Astley, but he was wont to be very quick, and not being averse from something like display he would sometimes, amidst numerous brilliant successes, overlook what a mere quiet examination would detect. In the case of alleged hip-disease, mentioned in this commentary, I have no doubt, from what I heard of the examination, that haste was the source of error. The lady told me that the surgeon took hold of the limb and twisted the thigh outwards, and when she complained of pain he immediately decided that there was disease of the hip. Now, to say nothing of numberless cases in which fugitive pains in joints do not involve what we understand by disease, the very movement she described would, I conceive, put the ligamentum Teres of the hip somewhat on the stretch, and occasion the pain in question. To return to diseases of joints, I used at one time to attach a good deal of importance (in prognosis) to the structures in which the disease might be supposed to have commenced; and again to those which might be involved at the time the case was first presented for observation. Further experience has convinced me that I greatly over-rated the importance. I do not mean that they are not important in relation to anchylosis, but that my prognosis, as regards the *ultimate* safety of the limb, is much less governed by such circumstances than formerly. Few points in the treatment of diseases of joints require more discrimination than the use of counter-irritants. I know not any terms in which I can briefly express a rule for the use or the omission of this class of remedies.

With a fair amount of power I think they are very useful, but where the evidences are the other way, the pulse feeble or too frequent, appetite below par, or somewhat deficient, and the nervous system excitable, they are of doubtful propriety; nevertheless, I have seen them very useful, where, in the cautious trial of them, I had been distrustful of them. Small blisters allowed to heal, and then repeated on the neighbourhood of the joint, are good modes of testing their applicability. I have not seen them of themselves do much good, but they are convenient as *avant coureurs* of more efficient measures, as issues. Both issues and setons are, in my experience, often made too large, the less pain or inconvenience that the patient feels from them the better. All that plan of dressing them with irritating irritants I regard as unnecessary or injurious.

There has been, I think, a tendency in those who employ counter irritants to regard them as chiefly useful in cases where the bones are affected; my experience does not enable me to confirm any such exclusive reliance on them, but they require attention to many circumstances which I have often observed to be disregarded. They are applied too indiscriminately, or rendered unnecessarily painful. I have formerly seen issues made so large as to constitute, in the state of the parent's health, a serious local injury, and, again, setons not only too large and long but made to discharge by irritating ointments, &c., as I have already said, all this is, in my idea, a mistake. In my view, a counter irritant is an attempt to assist the economy in determining to the surface actions that are destroying more important structures, but the setons or issues, &c., do not, *per se, give the power*, hence the propriety of their application depends on a discriminate view of the condition of the patient. Issues should at first be small, one that will enable you to insert three or four small glass beads (never peas) is quite big enough. Setons should be made with a small needle, the one I use at first is scarcely more than half the size of the ordinary instrument. In all cases friction to the skin *generally* is almost certainly beneficial. Friction *over the joint*, though a powerful remedy, depends on the time and circumstances under which it is applied. It is seldom safe before the joint has been brought to a state of comparative quiescence. The well-known successes which attended the practice of Mr. Grosvenor, of Oxford, and of Mr. Scott, formerly of Bromley, seem to have been dependant on this determination to the surface in the former case, and in the latter to the comparative quiescence which his plaisters tended to ensure, as also to the exhalation from the skin which their composition promoted. The mischief which has sometimes occurred from friction and counter irritation in diseases of joints, has resulted from the successful application of them having usually been extensively reported, *whilst the failures have not been reported with equal fidelity.* This has led to a too indiscriminate employment of these measures, notwithstanding that cases have occurred warning us against such indiscriminate practices. Amongst all diseases of joints hardly any are more serious than scrofula, yet if the internal organs are sound, and the necessary time and care given, they will, most of them, ultimately do well.

We can, indeed, hardly walk our streets without witnessing numerous examples of shortened and otherwise crippled limbs, the result of scrofulous disease; yet these cases, deplorable as they are, are still proofs that after a time the diseased actions have ceased. There is no doubt that many of these mutilated conditions might have been prevented had the patients been placed in circumstances at an early period affording a sufficiently enduring rest and other proper treatment. Whilst, however, under the actual circumstances of the patient, amputation may have become necessary, it is probable that very many amputations of joints which were unnecessary have been cases of scrofulous disease. I was one day going round St. George's Hospital with Sir Benjamin Brodie, many years since, when, looking at some cases of diseased joints, I observed, "we say" (alluding to the school of Abernethy), "that all these diseases will do well with sufficient rest and proper treatment." Sir Benjamin assenting, replied, "I have never amputated, in private practice, more than thirteen times in my life." No doubt persons in easy or affluent circumstances can give whatever time may be required, together with good air, certain kinds of exercise by gestation, and such means as are not to be found in hospitals or large and crowded cities. Indeed, Abernethy himself was wont to say of these as of other curable forms of serious diseases, "but do you think you can accomplish this in the air of an hospital?" Even in private practice people naturally become impatient, that renders them often intractable, then they are wavering in their confidence, and thus, under the influence of powerful but still secondary causes, throw away the advantages of their position until the vital forces become exhausted by continued contest, whence they can only be relieved by rendering further attempts at repair unnecessary or restricting it to the healing of a wound made by amputation.

Hospital Reports.

ST. THOMAS'S HOSPITAL.

CARIES OF TIBIA—OPERATION—DISEASE ENCROACHING UPON KNEE-JOINT—AMPUTATION OF THIGH—NECROSIS OF HUMERUS—RECOVERY.

Under the care of Mr. SIMON.

AMELIA G., æt. 7, a poor, emaciated, forsaken child, was taken into Queen's Ward, under the care of Mr. Simon, Aug. 31, 1866, with abscess in the right shoulder.

She had been half-starved and badly clothed for some time, and the shoulder had been bad apparently for a month or so, but not actively affected until a few days before admission, when she had fallen and hurt it. The history was unsatisfactory; no friends ever visiting the child or giving any account of her illness to the sister of the ward.

There was a large abscess over the pectoralis major on the right side, extending to the inner and upper part of the arm, over the biceps and brachial vessels. The superficial veins were greatly enlarged. This abscess was incised, and a large quantity of thick pus evacuated.

On September 8th, it was noticed that the right knee was painful and swollen, and tender on pressure over the

outer side. This was placed on a splint, and a blister applied, but the knee became worse, and abscesses formed, first on the outer and afterwards on the inner side, and were laid open.

The arm wound healed, and the knee became a cause of serious alarm for the safety of the child. On December 7th, a sinus remained on the outer side of the head of the tibia, and a probe could be passed through the head of the bone into a carious cavity beyond. This was laid open by Mr. Simon, when the child had been placed under the influence of chloroform. The wound in the skin was gradually enlarged during the operation, until it was made nearly three inches long, and the gouge was carried in the direction of the sinus, but along the lower part of it, so as to make a way into the carious cavity beyond. Here a good deal of carious detritus was found and cleared out, and free vent was left. In this operation nearly the whole of the lower half of the epiphysis was removed, the cavity cleared out, no sequestrum found, but the upper end of the shaft of the tibia seen to be carious, and therefore gouged away. The knee-joint did not appear to be materially affected if at all so.

On December 29th, or twenty-two days after the operation just described, she had sunk again after the short rally which followed the removal of so evident a source of irritation. She was now extremely exhausted, and reduced to a mere skeleton, the knee wounds were discharging copiously, and suppuration had extended up the thigh. Mr. Simon, therefore, thought it necessary to amputate immediately in order to give the child any chance of recovery. He amputated the thigh between the middle and lower thirds, by the circular method, using skin as almost the sole covering for the bone. The parts were very bloodless, and the femoral was the only artery tied. There was some bleeding from the vein, and this vessel was obliged to be ligatured, but it was freed from the ligature afterwards.

On the examination of the bones removed, we extract the following report from the Registrar's notes:—"Epiphysis now pretty extensively united to shaft. The deep, gouged channel much reduced by recent bone-formation; finger can be passed into knee-joint through the dissolved and ulcerated cartilage on the outer head of tibia; ulceration also on the opposed surfaces of femur, and tibia on inner side of joint; suppuration in popliteal space connected with disease of bone behind head of tibia."

She improved with wonderful rapidity after the operation. The stump healed readily; the ligature came away on the ninth day; she gained strength, and, from being a mere living skeleton, apparently beyond human aid, she became a cheerful, well-nourished, and healthy-looking child.

On March 6th, a sequestrum was removed from the humerus, about four inches in length, and involving about half the thickness of the shaft; but this does not appear to have given rise to much pain or inconvenience—the sinuses over the sequestrum, in fact, did not form until a few days before its removal, nor did it interfere with her general health. She continued to improve, and remained in hospital until all the sinuses were healed and a wooden leg could be adapted, and was discharged cured, August 21, 1867, 355 days after admission, and 235 after amputation. The last two months of her stay were more out of charity than from the surgical necessities of the case.

Remarks.—Taking into consideration, first, the disease of the knee-joint, it seems that in this case the primary mischief was caries at the line of junction of the upper epiphysis of the tibia with the shaft, and, in this respect, differs from the causes of joint disease, exemplified in the two cases of joint disease reported from this hospital in the MEDICAL PRESS AND CIRCULAR of December 4th. The main affection was on the outer side. It was here that the first abscess formed, and it was at this position that perforation took place into the joint, as was seen by the examination of the bones after amputation.

From the outer side, or nearly simultaneously with the primary disease, caries extended through the epiphysis, and a cavity formed in the back of the bone, and this was cleared away to a very great extent by the first operation. The disease advanced, however, through the outer articular surface of the tibia, and it would appear that a large spot of caries remained in the posterior surface of the bone, and this gave rise to the subsequent suppuration in the popliteal space.

That the first operation was most effectual is evident from the healthy condition of the parts which had been gouged; and it was owing to the exhaustive condition of the patient, together with the extension of disease into the knee-joint, that amputation of the thigh was made necessary.

In regard to the operations, the gouging was very extensive, and as far as could be felt, no trace of disease was left in the parts exposed. The caries was peculiar in not being confined to the epiphysis, but affecting also the upper end of the shaft; and this would not be expected in a child in whom the epiphysis were completely distinct from the shaft. All disease being apparently cleared away, free exit was made for the discharge—a point which Mr. Simon is most careful to insist upon. It is a great and instructive pleasure to watch the operations on bone performed by this surgeon, and to learn, by example, how to apply science and common sense in surgical operations no less than in other methods of treatment. Operations on bone usually fail from incompleteness, and the magnitude into which an apparently trivial operation on these tissues grows while on the operating table, is often enough to deter an ordinary surgeon from satisfactorily completing it. We speak from authority, when we say, that a very large number of the cases of bone disease admitted into Margate Infirmary, where the experience of this form of disease is almost the largest in the kingdom, have been under treatment in other hospitals, and, in many instances, discharged as cured, and that only a short time before their admission at Margate. Doubtless, in many of the cases, time has been the means of allowing a more perfect separation of sequestra, and parts which appeared previously healthy, or at most doubtful, may have become pronounced in disease; but many may be traced to insufficient and ineffectual operations.

Another feature of interest here, was the rapid convalescence after total removal of the disease; and the other point worth remarking, is the existence of the sequestrum in the humerus; but whether this was the cause of, or secondary to, the abscess in the shoulder on first admission, the history of the case does not clearly prove.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. TONGE.)

TYPHOID FEVER.—Elizabeth W., æt. 17, servant. Admitted May 20, discharged June 11; in hospital 22 days. *Recovery.* Previously ill, 14 days. Began with shivering on 16th day; pulse 96; respiration 24; slight delirium; tongue furred at edges; 8 or 10 rose spots over chest and abdomen, the latter rather tender; wheezing over lungs; purging slight, none after 19th day. No fresh spots after 21st day; free from delirium on 26th day; well on 33rd day.

Aromatic spts. of ammonia; liq. ammon. acetatis and chloric ether. Brandy, 2 oz.

TYPHOID FEVER.—W. E., æt. 23, labourer. Admitted March 7, discharged March 26; in hospital 19 days. *Recovery.* Access gradual. Previously ill, 6 days. On 7th day much headache; sleeplessness; tongue furred, red at tip; several rose spots on tumid and tender abdomen; pulse 92, respiration 36; rhonchus over back of chest; purged once on 7th and once on 13th day. No fresh spots after 15th day; no delirium. Well on 23rd day.

Bark and dilute nitro-muriatic acid (2 days). Chloric ether, aromatic spts. of ammonia and liq. ammon. acetatis (10 days). Then dilute muriatic acid and bark. Brandy, 6 oz.

Typhus.—M. L., æt. 43, needlewoman. Admitted June 23, discharged August 6 ; in hospital 44 days. *Recovery.* Previously ill, 6 days. Anorexia ; thirst ; loss of strength ; drowsiness ; inflammation of right parotid. On 7th day, pulse 100, feeble ; marked rubeoloid rash, delirium ; deaf on right side. An abscess formed in right parotid, and opened into the external auditory meatus on 14th day. Convalescent on 41st day.

Aromatic spts. of ammonia, liq. ammoniæ acetatis and chloric ether (7 days). Then quinine and sulphuric acid. Brandy, 9 oz. Abscess opened.

Typhus.—Maria C., æt. 35, married. Admitted June 17, discharged July 23 ; in hospital 36 days. *Recovery.* Previously ill, 6 days. No shivering, but heat of skin ; vomiting ; anorexia ; headache ; sleeplessness. On 10th day, pulse 120 ; tongue slightly furred ; wheezing over back of lungs ; faint measly rash on trunk ; purged slightly throughout. Convalescent on 29th day.

Aromatic spts. of ammonia, chloric ether and liq. ammoniæ acetatis. Afterwards quinine and dilute hydrochloric acid. Pepsine. Brandy, 6 oz.

Typhus.—S. B., æt. 25, labourer. Admitted May 10, discharged May 25 ; in hospital 15 days. *Recovery.* Out of work and ill fed 5 months. Previously ill, 17 days. Laid up 2 days ago. On admission (18th day) face dusky ; headache ; lassitude ; thirst ; dry dark brown tongue ; fading rubeoloid rash on trunk ; pulse 72. On 25th day, pulse 54 ; eruption gone. Convalescent on 28th day.

Dilute nitro-muriatic acid chloric ether and liquor cinchonæ (2 days) ; liquor ammoniæ acetatis and aromatic spts. of ammonia (5 days) ; then quinine and dilute sulphuric acid. Brandy, 6 oz.

Typhus.—Emily P., æt. 26, married. Admitted Sept. 23, discharged October 22 ; in hospital 29 days. *Recovery.* Previously ill, 1 week. Shivering ; pain in limbs ; weakness ; loss of appetite ; constipation ; headache ; sleeplessness. On 9th day, crepitation at base of lungs ; pulse 120 ; respiration 28. Distinct and abundant rubeoloid rash on 10th day.

Liquor ammoniæ acetatis, aromatic spts. of ammonia and chloric ether (6 days) ; tinct. opii and decoction of bark (1 day) ; then aromatic spts. of ammonia and bark ; starch and opium enema on 13th day.

Typhus.—C. S., æt. 10. Admitted September 26, discharged October 22 ; in hospital 26 days. *Recovery.* Previously ill, 5 days. On 6th day, skin hot, dry, and pungent ; abdomen and arms mottled ; tongue brown in centre ; red at tips and edges ; pulse 120 ; respiration 44 ; very drowsy. On 9th day, pulse 132 ; respiration 32 ; purged thrice. On 10th day, pulse 100 ; purged 5 times. On 13th day, pulse 104 ; purged 3 times. Convalescent on 17th day.

Carbonate of ammonia chloric ether and liquor ammoniæ acetatis ; same with decoction of logwood ; afterwards dilute nitro-muriatic acid and liquor cinchonæ. Brandy, 4 oz.

Typhus.—H. F., æt. 24 ; nurse in K.C.H. Admitted January 3, discharged February 24 ; in hospital 52 days. *Recovery.* Previously ill, 3 days ; no distinct rigor. On 4th day, severe headache ; nausea ; brown tongue ; pulse 130 ; rubeoloid rash on 5th day ; slight delirium on 6th day ; afterwards much restlessness. On 14th day, very prostrate ; sordes on lips and teeth ; tongue brown and dry ; pulse 140 ; intermittent and feeble. Began to improve after 16th day ; purged not more than 4 times daily till 23rd day. Convalescent on 24th day ; Well on 42nd day.

Liquor ammon. acetatis, aromatic spts. of ammonia and chloric ether (9 days) ; aromatic spts. of ammonia (12 days) ; then dilute muriatic acid, chloric ether and liquor cinchonæ. Brandy, up to 24 oz. ; enemata of beef-tea, quinine and brandy ; astringents for diarrhœa.

Typhus.—C. H., æt. 25, costermonger. Admitted December 28, 1863, discharged January 25, 1864 ; in hospital 28 days. *Recovery.* Previously ill, 14 days. On admission (15th day) rather deaf ; headache ; tongue yellowish brown, dry and tremulous ; no appetite ; pulse 120 ; respiration 30. Faint rubeoloid rash on trunk, with a few petechiæ. Trace of albumen in urine (4 days). On 17th day rhonchus and sibilus over lungs ; coarse crepitation at bases ; frothy expectoration ; pleuritic rub at lower part of left side on 23rd day ; nocturnal delirium till 22nd day. Convalescent on 29th day.

Quinine dilute muriatic acid chlorate and nitrate of potass and sp. eth. nitric (2 days) ; same with tinct. scillæ (5 days) ; arom. spts. ammonia chloric ether and tinct. scillæ (2 days) ; same with liq. ammon. acetatis (2 days) ; then quinine and dilute muriatic acid. Brandy, 12 oz. ; turpentine stupes.

Typhus.—G. C., æt. 18, printer. Admitted September 18. *Died* on September 28. In hospital 10 days. Caught from family. Previously ill, 2 days. Pain in back, constipation and thirst ; rash appeared on 5th day ; distinctly rubeoloid on 6th day ; urine 1-6th albumen ; on 7th day tongue brown, glazed, and tremulous ; expectoration, viscid mucus streaked with blood ; purged twice yesterday ; on 9th day many petechiæ on abdomen ; much subsultus ; pulse 148 ; respiration 32 ; on 10th day violently delirious, refusing food ; on 12th day unconscious ; pulse 172 ; respiration 48 ; died on 13th day. *Post-mortem.*—Lungs emphysematous ; slight renal congestion ; liver somewhat soft.

Aromatic spts. of ammonia chloric ether and liq. ammon. acetatis. Brandy to 18 oz. Liq. morph. acetatis ℥xx. on night of 24th. Emp. Lytt. to forehead and behind ears.

Typhus.—Mary A. N., æt. 13, servant. Admitted May 6. *Died* May 14. In hospital 8 days. Previously ill, 5 days. Headache ; shivering ; loss of appetite ; slight sore throat ; on 7th day, pulse 120 ; face dusky ; eyes suffused ; slight delirium ; distinct rubeoloid rash all over her. Tongue, brown and dry ; skin hot and unperspiring throughout ; the delirium continued ; on 12th day began to pass motions and urine under her ; gradually became weaker ; died comatose on 14th day. *Post-mortem.*—Slight congestion of lower pulmonary lobes ; spleen and liver rather soft.

Liquor ammon. acetatis and aromatic spts. of ammonia, pepsine ; enemata of beef-tea, brandy, pepsine, and quinine. Brandy up to 12 oz.

Typhus.—Timothy D., æt. 10. Admitted June 7. *Died* June 9. In hospital 2 days. Previously ill, 10 days. No marked shivering ; headache ; pains in limbs ; sleeplessness ; thirst ; loss of appetite ; diarrhœa ; petechial eruption on 5th day ; on 11th day eyes suffused ; face dusky ; cannot be roused to answer questions ; abdomen tender and tympanitic ; numerous petechiæ on trunk and limbs ; tongue dry and blackish brown ; sordes on teeth ; pulse 120 ; respiration 44 ; sibilus in front of lungs ; crepitus at bases behind ; death on 13th day. No *post-mortem.*

Turpentine ℥x. 6tis horis. Brandy to 9 oz. Pepsine. On 13th day, liquor ammoniæ acetatis and chloric ether.

Typhus.—Ellen K., æt. 23. Admitted August 29. *Died* on September 3. In hospital 5 days.

Dilute muriatic acid, chlorate of potass and bark ; pepsine ; brandy 24 oz.

The Management of Lunatics.—An inquest just held at the Abergavenny Joint Lunatic Asylum shows how little restraint is sometimes exercised over really dangerous lunatics. One of the inmates of the Asylum, a Mrs. Mullard, was found strangled in bed. It was stated in evidence that the apron found on the neck of the victim was that of another patient, who said that hearing Mrs. Mullard "praying to God" she thought "she would send her to him at once." Notwithstanding this important circumstance, the jury, with proverbial intelligence, returned a verdict that "the deceased died from suffocation, but how caused there was no evidence to show."

Professor Faraday's Library will be sold early next month by Messrs. Puttick and Simpson, at their rooms in Leicester-square.

Foreign Medical Literature.

REPORT OF AN OPERATION FOR HERNIA CEREBRI: WITH OBSERVATIONS.

BY DR. MED. H. HIRSCHSPRUNG.

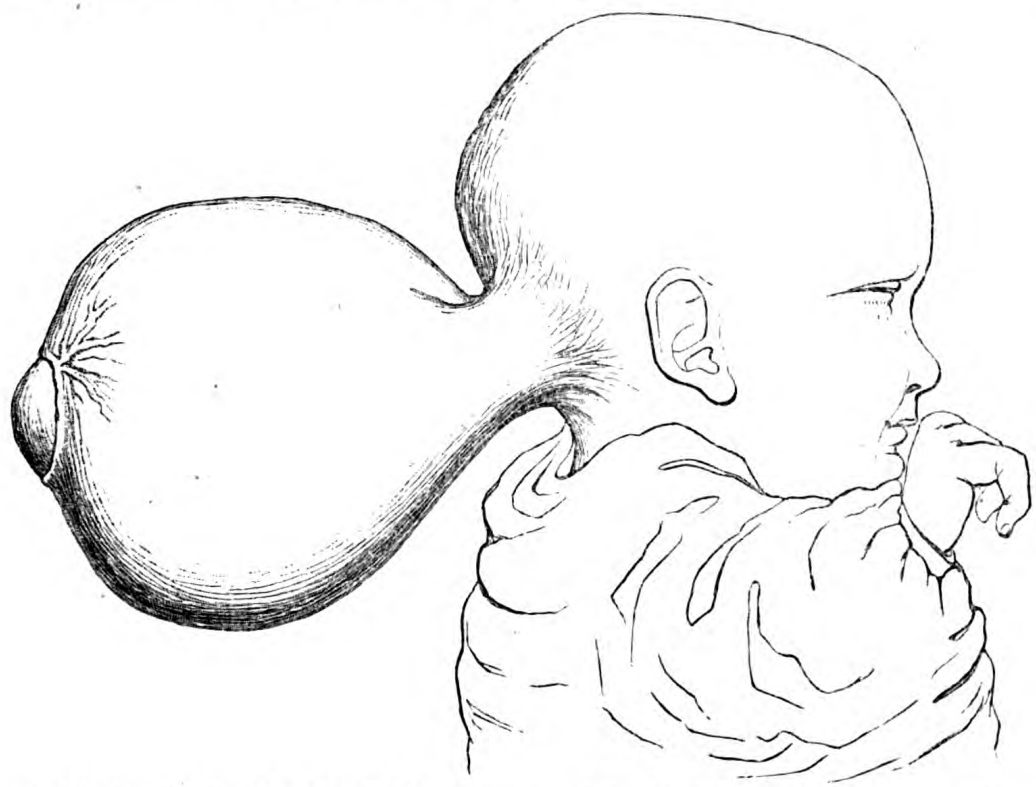
Translated, with abridgment, from the *Ugeskrift for Læger*, Nos. 16-19, March and April, 1867.

By W. D. MOORE, M.D.Dub. et Cantab., M.R.I.A., L.K.Q.C.P.I.

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

On Saturday, the 10th of February, 1866, I was called out by a midwife to see a newly-born female child, in the city, who had come into the world with a large tumour in the occipital region. The mother was a recently-married primipara, of strong appearance, and neither in her family nor in that of her equally healthy husband (they were both from Flensborg) had any, so far as was known, malformations occurred. To my question whether anything remarkable had happened to the mother which she could connect with the condition of the child, she stated that during the early months of pregnancy, while she was living with a tavern-keeper in Tivoli, and had to bring water from the moat, she had fallen in, and was helped out only on giving the alarm—an accident which had, of course, affected her very much, but had otherwise left no apparent consequences. Her pregnancy had run a perfectly normal course, except that the birth of the child had taken place about a fortnight before it was expected; thus she had menstruated last on the 7th May, and thought she became pregnant on the 14th, or one of the immediately subsequent days. Her labour commenced in the afternoon of the 10th February. On the arrival of the midwife the os uteri was already much dilated; shortly after the waters came away; nothing remarkable was observed on repeated exploration, which showed that the head was presenting. After the labour had continued altogether scarcely two hours, the child was born, and it was not until after it was expelled that an enormous tumour was discovered on the back of the head, which, it was supposed, had lain, during the passage through the pelvis, on the child's neck. Shortly after the placenta came away, and on examination presented nothing morbid. It was small; the funis was thick, fat, with bulgings out in a couple of places. I may here add that convalescence proceeded quite normally, and that the mother the very day after her confinement had plenty of milk, so that the child could be applied to the breast.

The child was small, and seemed still to want about a fortnight of perfect maturity. It was, with the exception of the tumour proceeding from the occipital, perfectly formed, cried lustily, and took eagerly the *eau sucrée* given to it, and soon after birth passed meconium. Our whole attention was therefore concentrated on the tumour. This arose by a short, thick stem from somewhat below the middle of the occipital bone, and subsequently expanded into an oblong, purse-shaped swelling, which was quite flaccid, and assumed different directions and shapes, according to the position of the child. It was evident that it contained a thin fluid, and examination with a candle showed also that the tumour was transparent. As is seen from the drawing (made by Dr. Lütken), it is placed on the same plane as the head of the child, which rests on the left side. Measured in this position, it gave the following magnitudes: from side to side, 4½ inches; from above downwards, 4 inches; height from the table, 2 inches; circumference of the tumour at the broadest part, 10 inches; circumference of the stem, 3½ inches.



The sac was a direct continuation of the skin of the head, the colour and other appearances of which it retained, except that the skin became a little thinner the farther it was removed from the head. It was provided with a fine network of capillary vessels, which filled when the child cried, reddening the colour and increasing the warmth of the part, and on the stem and a short way along the tumour was a growth of fine hair. On the end farthest from the head were whitish, firm cicatricial striæ radiating in various directions. Directly beneath this part, quite posteriorly, the skin was highly attenuated, or more correctly, was quite deficient, and replaced by a thin, transparent membrane, which projected as a protuberance, and, when more fully distended, seemed to threaten to burst. Similar, but very small spots, were seen in a couple of places between the cicatricial striæ. On pressing in towards the skull at the starting point of the tumour we distinctly felt proceeding from the bone and projecting into the neck of the sac a smaller, as it seemed, very solid tumour, with a broader base, situated about in the middle line, but yet with its greater half to the right side. As it extended about an inch into the sac, it was felt at one part in close connection with the inside of the latter, but terminated thereupon thinner and irregularly patched. It lay with its base immovable upon the bone, and could not be pressed back. Neither was it possible to demonstrate the ex-

istence of any opening in the bone ; only by passing the finger from above down towards the seat of attachment of the small tumour did one get the sensation of sinking into a slight depression. I may add that the attempt to compress the sac did not produce any diminution of its circumference, and consequently no symptoms of pressure on the brain. The shape of the head presented no peculiarity, the fontanelles and sutures were tolerably large, but not more so than might be expected in consequence of the child's somewhat premature birth. The measurement around the forehead and occiput was twelve inches, and must therefore also be considered normal.

At a subsequent point of this communication I shall speak of the diagnosis more at length ; but I may be permitted now briefly to mention the considerations which directly presented themselves, and influenced the treatment. There could be no doubt that we had to deal with a tumour, which in one way or another was connected with the organs in the cranial cavity. In favour of this view were decidedly our experience of the usual nature of such tumours, its situation, its watery contents, and the solid production proceeding from the cranium itself, and projecting into the sac. Vastly more difficult it seemed, on the contrary, to decide whether the smaller tumour consisted of a process of the cerebral membranes, which in view of the considerable and almost cartilaginous solidity recognisable by the touch, could not be looked upon as quite inadmissible, notwithstanding the great rarity of such a case, or whether we had to deal with a hernia of the brain itself, against which assumption the consistence of the tumour seemed to testify, while its situation in one of the favourite localities of cerebral hernia and the comparatively frequent occurrence of the latter were well adapted to excite a justified suspicion. Further, it was necessary to inquire, a point which might be of great importance with respect to the question of eventual operation, whether a hope might be entertained that the direct communication with the cavity of the skull, which, at all events, at an earlier period had existed, might now possibly be interrupted by the closing of the intervening opening. It was not possible to feel any opening in the bone, and pressure on the tumour did not diminish its fluid or solid contents.

These several questions I canvassed in conjunction with Professor Brünniche and Dr. Studsgaard, without our being able to come to any definite conclusion. With respect to two things we were, however, agreed—namely, the duty of endeavouring, by artificial means, to remove a malformation which, even if it were compatible with life, must make the latter a burden; and, secondly, the necessity of not deferring the attempt too long, if we would not consign the child to certain destruction, as the tumour might any moment give way, whereby, in all probability, such a violent suppuration would be produced in the large sac as to carry off the child, not to speak of the probability of unfavourable complications. We determined, therefore, to remove the tumour, and to do so as soon as possible, and it now remained only to decide on the mode of operation. The child's tender age would necessarily require the gentlest proceeding, its feeble strength would demand a method unaccompanied with loss of blood, and which would not in the process of healing draw too largely on the system; the stalked form of the tumour suggested the use of a ligature, while, nevertheless, its comparatively thick neck, with its more solid contents, made it doubtful whether a silk, or even a metallic, thread would be able to penetrate it ; in a word, all interests seemed to combine to demand the employment of Chassaignac's écraseur, and we finally decided in favour of this instrument.

On Monday, the 12th February, at one o'clock, we proceeded to operate. The child had, therefore, at the time not completed 48 hours. During the operation, which was performed by Dr. Studsgaard, and which lasted about 20 minutes, the little patient was kept under the influence of chloroform. It gave no apparent sign of pain, and awoke immediately after the cessation of the operation. The sac was first evacuated by puncture. It contained about 12 ounces of a highly blood-coloured, clear, and but slightly viscid fluid, which, after removal, became somewhat thicker. The chain was then brought around the neck of the sac, and, with slow movement of the instrument, ceasing about a minute between each tightening of the chain, the tumour was cut off with great ease. Immediately after, however, the skin became strongly retracted on all sides, and exhibited throughout a circuit of one and a half inches in diameter, a wound covered with the subcutaneous connective tissue, in the middle of which was observed a circular, dark-red spot of about three lines in diameter. This represented the truncated stem of the inner tumour projecting through a corresponding opening in the bone, directly over the spina occipitalis, which was situated unusually low down. By the side of the dark part a fine probe could be passed an inch into the cavity of the skull without meeting any resistance. Deeper probing was considered unadvisable. After a slight hæmorrhage from the connective tissue had been arrested, the wound was united by three sutures, then covered with lint and a bandage (Funda).

Lector Reisz was so good as to give me the following more accurate description of the sac and its contents :—

The fluid was highly sanguineous, and on standing deposited a coagulum at the bottom of the glass. Under the microscope numerous blood corpuscles with epithelial scales were seen. It was not chemically examined. The wall of the cyst was formed of the skin, and the subcutaneous, rather scanty connective tissue ; within this followed a layer of fibrous tissue forming the innermost lamina of the wall of the cyst. On the most prominent part of the cyst was seen a somewhat retiform structure, consisting of thick decussating fasciculi of connective tissue. Down towards the neck of the cyst the fibrous membrane becomes thicker, and is divisible into two, in some places even into three laminæ (pericranium + dura mater—pericranium + two layers of dura mater). In this fibrous membrane run tolerably large vessels, veins and arteries, lying close to the inside of the membrane ; where this divides into two laminæ the large vessels run in the innermost. The tap, which projects as a pyriform tumour, 5-4ths of an inch in length and 3-4ths of an inch in breadth, is invested with a loose connective tissue, in which are seen numerous vessels and small ecchymoses (pia). It is of somewhat softer consistence than the normal cerebral mass, and is continued into a round stem one centimètre in length by about four millemètres in thickness, which is somewhat firmer than the tap itself. On section, this is found to consist of two differently coloured substances : an external peripheral layer of a dark grey colour, with numerous bloody points and blood-red streaks, and striæ of two or three millemètres in thickness, and a central layer lying within this which occupies the greater part of the tumour, and is of a deep red colour, occurring partly in points, partly as radiating, red striæ proceeding from the stem. Between the compactly placed points and striæ the mass presents a whitish colour. In the stem itself the two substances are not to be distinguished from each other, the colour being there uniformly blood-red. On microscopical examination the grey peripheral mass is seen to contain innumerable blood-corpuscles, in part scattered without arrangement, in part evidently enclosed in minute vessels. The principal mass is composed of a finely granular intercellular substance entirely resembling that of the cerebral tissue, in which are scattered nuclei, which, in the most superficial part of the peripheral layer are fewer, but become more numerous more internally. The nuclei are of various shapes, varying on section from 0·002 to 0·005 mm. in diameter. In addition some drops of myelin are met with. The central substance contains a confused mass of blood corpuscles, drops of myelin of various forms, fragments of vessels ; no distinct nerve-filaments were observed.

The child seemed to be much exhausted by the operation, its temperature was low, the colour of the skin was icteric. The probability, revealed by the operation, that we had taken away a small portion of the brain, which will be found fully corroborated by the pathologico-anatomical description given above, and the certainty that, at all events, a direct connection with the cavity of the skull had been opened, although only through a minute passage, were not adapted to strengthen our previously only faint hope of a successful result, and we already saw before us the prospect of a violent inflammation of the brain, and of the child's speedy death. In so much greater contrast must, therefore, the immediate result of the operation appear.

February 13th.—Soon after the operation the child took the breast, and has repeatedly sucked well. The bowels, too, have acted. The child has slept well.

[From subsequent reports it appears that the healing process went on but slowly, and was not completed until towards the close of March. The cicatrix presented nothing unusual, and was quite movable over the subjacent parts.]

(To be continued.)

THE SUFFERERS IN ST. BARTHOLOMEW'S AND ROYAL FREE HOSPITALS.—The last report says all are progressing favourably except a poor little fellow five years old, who is incurably blind, and "who lies constantly with his eyes to the pillow, as if lost to this world." The out-patients from the explosion, are with a few exceptions, no longer under treatment.

Literature.

NEW EDITIONS.

We resume our notices of new editions of books, commencing with a bulky, well got up volume from America, of which any publisher might well be proud. The work has long been a standard one on obstetrics,[1] and we may therefore be justified in first of all alluding to the form of this new edition, the fifth. It is printed in the best style of art, on fine paper, occupies 760 pages, is very strongly bound in cloth, and the edges are, as they ought to be in all books of this size, properly cut. In a volume of no permanent interest these points are of slight importance, but in a classical work for the study they deserve the attention of publishers. We are glad to say, in this respect, that all has been done to make the book a model, which we hope may be copied. It has been a luxury to peruse it, and a comfort to feel that after doing so it is as new in appearance as ever. Having said thus much, let us turn to the contents of the work. The name of Professor Meigs has long been familiar as a leading American authority on midwifery. Four large editions have preceded this, which seems to have been carefully revised throughout. Besides chapters it is divided into separately numbered paragraphs, 958 in all, which renders it easy of reference. Dr. Meigs throughout addresses himself to the student; yet, where his own opinions are not generally accepted by his professional brethren, he gives both with admirable impartiality. He looks with pride upon his calling, and on suitable occasions does not hesitate to inculcate "good and pure motives" as essential "to the honourable estimation of this department of medicine and surgery." The science and art of obstetrics both receive full attention. The author thinks it is only by the science that the vocation of the accoucheur can be made an elevated one. He says on this point:—

"It is the science of the practitioner that raises him immeasurably above the most dexterous midwives of the land, dexterity which, indeed, does not prevent their ignorance from rendering them unsafe depositories of such important interests as those that concern the conservation of our wives and daughters, and their little children. An accoucheur who is merely dexterous, and who is not acquainted with the scientific parts of his profession, may be, in a manner, superior to the midwife, but in some regards he is inferior; since, to his employment, his sex is an objection, which ought to be waived only in consideration of his scholarship."

Such is the spirit in which this venerable and renowned teacher addresses students, and, we trust, it will be fully appreciated.

The science of obstetricy, according to Dr. Meigs, comprises the anatomy, physiology, and pathology of the reproductive organs, together with embryogeny, the therapeutics and surgery of sexual diseases and accidents, and the disorders of the newly-born infant. Midwifery he calls the "art of assisting women in labour, and of guiding their conduct throughout the following confinement." All these are fully treated of in the volume before us, with a clearness, precision and vigour, that at once charm the reader and command his respect for the talents of the writer. It is impossible to do justice to such a work in a brief notice, and we are fain, therefore, to repeat the mere truism, that it has long been the standard classical work in America, and is favourably known throughout the old world. Those who practice midwifery, and are not acquainted with it, should at once indulge themselves with the new edition, and spend a few leisure hours in the intellectual refreshment of perusing it.

Dr. Meigs was from the first an opponent of the use of anæsthetics in midwifery, and we feel a certain disappointment in having to state that his opinion remains unchanged. He is convinced that "anæsthesia in midwifery has done more harm than good," and, he believes, "its use will decline, and not increase." He thus concludes the section in which this question is discussed—"Having declined for the short remainder of my life the business of a physician, and regarding that circumstance as liberating me from many of the mental bonds that qualify more or less every medical man engaged in the active pursuits of the profession, I distinctly express my regret for the introduction of the anæsthetic methods into the practice of midwifery. I consider that, notwithstanding, there may be some instances in which parturient women should be benefitted by the use of ether, yet, such cases are extremely rare; whereas, the mischiefs arising from the lavish and indiscriminate use of anæsthesia, so tempting as it is, are very numerous and serious."

Yet although Dr. Meigs has discussed the question with great calmness, there is nothing new brought forward to sustain this conclusion. The talk of the drunkness of anæsthesia we put on one side as the mere retort of prejudice. The idea that it is contravening Providence to alleviate the pain of labour, ought only to be held by those who would be willing to carry it to its legitimate conclusion. Yet, we never heard any one say that as it is the ordinance of Providence for men to suffer from disease, so it was presumptuous to try to stem morbid action, nor is it admitted that as it is decreed for men who sustain certain kinds of violence to have their joints dislocated, so the surgeon who reduces the luxation flies in the face of Providence. The one argument advanced by Dr. Meigs is that labour-pain is not pathological, and is, after all, very bearable. But we ask him fairly, is he to be the judge of this? Very easy, indeed, is it for us to look on and say the pain is not so bad, and does not last long; (our author computes that all the pains of a natural labour make up 25 minutes only of actual pain); but women tell a different story—and why should not they be allowed a voice in a matter which to them is much indeed, though to the accoucheur a very little? We remember very well hearing a student trying to sympathize with a woman, by assuring her that the pains were natural, would soon be over, did not last long, and so forth. The answer he received was, he would not talk so if he felt them instead of looking on, and we fancy this is the reply which Dr. Meigs will get from women generally.

The calculation of the time is pretty enough on paper, but will never convince the sufferers. Besides, if it were but of twenty-five minutes—nay, less—if only five minutes—why should that five minutes of agony be endured unnecessarily? In using the word agony, we may be thought to adopt a strong term, but we are sure that mothers would justify us, and they ought to know. We have little space for other points. We can therefore only mention the elaborate chapter on puerperal fever, in which Dr. Meigs, in his most trenchant style, attacks the doctrine of contagion as "injurious to the profession, pernicious to the people, by filling the minds of interested parties with alarm, and as propagating, from age to age, a vile, demoralizing superstition as to the nature and causes of many diseases."

In no instance has the battle between contagionists and non-contagionists been fought with such spirit, as in reference to puerperal fever, and no champion of the non-contagionists is so redoubtable as the venerable Professor of Philadelphia. It is not necessary to express our own convictions here. We mention it because the chapter is quite exciting, and we want to persuade all who have not read this book to take it up. They are then sure to read it through. We shall only name one other chapter with the same view, that on the "Physiology of Reproduction," which is quite exhaustive, and contains many hints of direct therapeutical value. The author follows the views of M. Coste, and adds, too, something of his own. It would be well if every student were well up in the anatomy and physiology of the ovaries, for in such knowledge lies the key to many a case, which has been a sad puzzle to numerous practitioners.

Speaking of the ovaries, reminds us of the second edition of a work[1] on the extirpation of those organs which has just been published by Mr. Hardwicke. We speak of it as on the extirpation, for although it contains a full account of the pathology, diagnosis, and treatment of ovarian tumours in general, the larger and unquestionably the more important part of the work details the author's experience of ovariotomy—an operation of which he was one of the first to undertake, and advocate in recent times, and in which he has been pre-eminently successful. We have read very carefully every page of this book, and compared it throughout with the former edition. We find that it has been thoroughly revised, in some parts re-written, and there is a large amount of additional matter. The book is, in point of fact, about one-third larger. This is to be accounted for by the fact that all the cases successful and unsuccessful in which Mr. Brown has operated since the appearance of the former edition, are related, and the present volume consequently, contains a complete record of his experience of ovariotomy.

1 Obstetrics: the Science and the Art. By Charles D. Meigs, M.D., late Professor in Jefferson College, &c. Philadelphia: H. C. Lea. London: Trubner, 1867.

1 Ovarian Dropsy: its Nature, Diagnosis, and Treatment. By I. Baker Brown, F.R.C.S. 2nd edition. London: Robert Hardwicke.

We have said this edition is carefully revised. We find, in fact, that there is scarcely a page of the old matter that does not give proof of this. Carelessly worded paragraphs now appear more precisely written. Whole sentences are changed in order to render the sense more clear and unmistakable, and considerable changes have been made for the sake of style. The diction is, therefore, more exact, while the book is much more readable. Many inelegancies have disappeared, and we no longer notice any marks of haste in composition.

The chapter on pathology has been largely added to, in order to bring it down to the knowledge of the day. Thus we find the essay of M. Cazeaux, the great work of Professor Courty, of Montpellier, only published last year, and the admirable monograph of Professor Pflüger, have all been consulted in addition to recent British writers.

Following this we have a chapter on the symptoms and cause of ovarian dropsy, which will be useful to the young practitioner. The chapter on diagnosis seems to us greatly improved. Although the general treatment is of inferior interest to the operation, it is very impartially related prior to entering on the subject of ovariotomy.

It will be remembered that, some years ago, Mr. Baker Brown entertained strong hopes that milder measures than that of extirpation might often be useful, and he has himself described some of them—more especially the combination of taping with pressure. Further experience of the almost unhoped for success of ovariotomy has led him to recommend the radical cure in almost all cases of simple cysts. Let us see what this experience amounts to. In the work before us we have the detailed histories of 111 cases of *completed* extirpation, eight of incomplete, seven in which a portion of the cyst was excised, seven of exploratory incision, and three of formation of artificial oviduct. The first edition of Mr. Brown's book only contained forty-two cases, his total up to that time. It will at once be seen how greatly his experience has been increased since the former publication, five or six years ago. As to results,—at first the mortality was very heavy: nearly two-thirds of the patients died. A little later, half only,—still a little later, one-third, then only a quarter, and the mortality goes on steadily decreasing with every improvement. This was noticed by all ovariotomists when ligatures were dispensed with. Again, doing away with the clamp, and dropping the pedicles, tied and cut off close, into the abdomen, in the opinion of some operators, decreased the deaths. The last step in simplifying the operation was introduced by Mr. Baker Brown himself, and consisted in dividing the pedicle by actual cautery, and so avoiding the necessity of leaving a foreign body in the abdomen, yet enabling the operator to close the wound at once. To this the author attributes a very considerable reduction in the number of deaths after ovariotomy. Some of the earlier cases have been submitted to the several medical societies, but all are now here collected,—with this result. Of 49 cases in which the cautery has been used, 41 have recovered, and only 8 died. Of these 8 there were 3 in which the operation could not be completed on account of some untoward complication. Excluding these, we have the magnificent result of 41 recoveries out of 46 operations. Surely the opponents of the operation can have no more to say against it. Out of 46 persons labouring under a disease, which although not immediately fatal, only tends to grow worse and worse, no less than 41 restored to health. The chances are evidently such as not a few victims of disease will be too glad to run. Another very successful operator is Dr. Keith, of Edinburgh. He has lately published his experience. He has operated 51 times; with success, in 40 cases, the remaining 11 having died. We may next contrast the numbers with those of Mr. Spencer Wells. That gentleman stated two or three weeks since, at the Samaratan Hospital, that of his last 44 cases only 6 had proved fatal. Comparing then the results of these operators, it would seem that those detailed above are even more favourable, so that the author of the work before us is, at the present moment, the most successful British ovariotomist. We are pleased that he has given his book so much of a clinical aspect, by merely relating the cases in due order. To those who have not studied the question, it may seem as if such a method would lead to a certain degree of monotony. This effect is however prevented by the conciseness of the narrative—the salient points alone of each case being insisted on. Upon the writer of this notice, who believes himself familiar with every work on the subject that has been published in this country, or on the Continent, the clinical record, under consideration, has produced a strong impression. An honest perusal of it, by those few who, at this day, condemn ovariotomy, might well change their views.

We have next to announce that a second edition of Mr. Skey's six lectures on Hysteria[1] has reached us. It is a reprint of the book noticed by us some time since, and, therefore, does not require further consideration. We must, however, repeat our protest against Mr. Skey representing that the bulk of the profession is opposed to tonic treatment, and in the habit of bleeding and otherwise depressing to excess. In most of our large cities, perhaps, the other extreme is more likely to be reached, and Mr. Skey seems to forget the great changes that have taken place in practice since he was young. He does himself scant justice in representing that his own teaching (as well as that of others), during the last half century, has had but little effect. We beg to remind him, with the greatest respect, that a generation of his own pupils are now in practice, scattered throughout the country, and therefore it is almost impossible that the lessons he so long ago inculcated, should not have brought forth fruit in a way to render his picture of the actual practice of the profession no longer true.

The only possible plea for such a picture is, that many text-books and manuals continue to teach the same therapeutical methods as their predecessors, but text-books change very slowly, and cannot in any case be taken to represent the living voice of the profession. At any rate, there is now no neglect of stimulants and tonics. We do not think these agencies are in the least danger of being omitted, and sometimes are inclined to fear that they may be used too freely. Altogether, then, we fail to see the opportuneness of Mr. Skey's warning, and the need for his urgency in pressing what he calls the "treatment of disease by tonic agency."

Under the title of the "World-Wide Library," Messrs. Routledge and Sons are publishing a series of standard works, at 6d. each. In this form they have brought out for that sum a complete and well-printed edition of De Quincey's "Confessions of an English Opium Eater." No one can now say that that remarkable work is beyond his reach.

We have still several new editions on hand, but must let them remain another week. This article is already so long, that we will close it by noticing a little book which, not being strictly professional, demands but few words at our hands. It is the eighth edition of Mr. Streeter's little work on jewellery,[2] which, if not necessarily interesting to our medical brethren absorbed in the cares of practice, will be heartily welcomed by their wives and daughters. It initiates the reader into the mysteries of carats, and the value of the different qualities of gold, gives hints to purchasers that may save them much money, and contains some curious notes and statistics about the value of gold in different countries. The chapter on how jewellery is made by machinery, is illustrated by the dies and presses that are used in the author's establishment.

CLYDESDALE DURING THE GLACIAL PERIOD.—To sit on one of the headlands of the Clyde and watch the myriad ships as they come and go from all corners of the earth; to trace village after village, and town after town, dotting the coast-line far as the eye can reach; to see the white steam of the distant railway rising like a summer cloud from among orchards, and corn-fields, and fairy-like woodlands; to see far away the darker smoke of the coal-pit and the iron-work, hanging over the haunts of a busy human population; in short to note all over the landscape, on land and sea, the traces of a power that is everywhere changing the face of Nature, and then to picture that earlier time when these waters had never felt the stroke of oar or paddle, when these hill-sides had never echoed the sound of human voice, but when over hill and valley, over river and sea, there had fallen a silence as of the grave, when one wide pall of snow and ice stretched across the landscape; to restore in imagination the dull, sullen glacier threading yonder deep Highland glen, which, to-day, is purple with heather, and blithe with the whirring of grouse and woodcocks; to seal up the Firth once more in ice as the winter frosts used to set over it, and to cover it with bergs and ice-rafts, that marked the short-lived Arctic summer; to bring back again the plants and animals of that early time; and thus, from the green and sunny Clyde, with all its human associations, to pass at once, and by a natural transition, to the sterility and solitude of another Greenland, is an employment as delightful as man can well enjoy.—*North British Review.*

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1 Hysteria.—Six Lectures to the Students of St. Bartholomew's Hospital in 1866. By F. C. Skey, F.R.S. Second Edition. London: Longmans.

2 Hints to Purchasers of Jewellery. By Edwin W. Streeter. 8th edition. London: Simpkin & Co.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 22, 1868.

COTTAGE HOSPITALS.

SINCE Mr. ALBERT NAPPER established his "village hospital" at Cranley, in Surrey, these unpretending institutions have grown rapidly in public favour, and may now be said to have established for themselves a position of usefulness which few anticipated they would attain. It cannot but be a source of gratification to Mr. NAPPER to find himself the pioneer of a scheme so beneficent and successful, and his pamphlet[1] referred to by every one desirous of founding one of these charities. Within seven years of the Cranley Hospital being founded, 16 similar institutions were at work, and 67 others in the course of being established. The number is being constantly added to, and yet there is doubtless ample scope for further increase. Mr. H. SWETE has lately suggested the propriety of organising a *National Cottage Hospital Association* to aid in establishing these institutions; frame a common set of rules for their management; diffuse adequate information about sick diet, cookery, and nursing; supply plans for building and furnishing; and otherwise aid by money and advice wherever they may be required. The scheme is, perhaps, a little ambitious, but once in working order would, no doubt, greatly promote the object in view.

The many advantages of Cottage Hospitals have been summed up in a recent pamphlet by Dr. WARING[2], who advocates their extension and lays down rules for their management with earnestness and precision. We refer the reader who may desire information as to details to both this and Mr. NAPPER'S work, and propose to devote this article to the consideration of one or two principles of the highest importance. First of all, then, as to the surgeon of the institution. It seems to be taken for granted that the office must, in every case, be a gratuitous one, and while all London charities are thus worked, perhaps it would be hard to insist on such unpretending ones commencing a more just system. But, with regard to who should be the Medical Officers, it seems to have been too hastily assumed, in some quarters, that the care of the hospital must be confided to one surgeon. Here and there this may be well, but, as a rule, we venture to express an adverse opinion. There is no reason at all why all the practitioners within a moderate distance should not be on the staff. To give the office to one is to place the others at a disadvantage, and necessarily to encourage the establishment of rival hospitals. It is urged by Dr WARING that every medical man in the neighbourhood may send in suitable cases, perform an operation, and take any fee that may become due for it from the Poor-law Guardians. We, however, dispute his axiom that, "as a matter of necessity, one medical man must be surgeon or medical attendant in ordinary;" and we ask him to candidly reconsider this point. He can only desire the utmost good feeling to prevail between all the medical men of a district, and this we think would be best secured by making all equal in authority, and, therefore, equally interested in the welfare of the charity.

We have yet another fault to find with some of the promoters of these excellent institutions. They would impart to them a sectarian aspect by endowing the clergyman of the parish with authority over them. Far be it from us to deny that the parish clergy, as a body, are always ready to aid by their influence every good work; but this is a virtue by no means confined to the clergy of the Established Church, and to utterly ignore the non-conforming bodies is to show either sad ignorance of the condition of the country, or a still sadder narrowness of spirit.

Here and there, it may be, a small district may be found in the rural parts of England, where the English Church is so much in the ascendant that other religious bodies scarcely make their existence known; but these, in general, are not the places where progress is being made, and where activity is perceived in establishing all kinds of good works—cottage hospitals amongst them.

We would therefore urge a much broader basis in this respect than any one has yet proposed. We are gravely told that the spiritual supervision of the hospital *naturally* devolves on the clergyman of the parish, and are advised to make him the general manager—a proceeding likely to lead to great dissatisfaction, for there is always danger that the assumption of the priest, on the one hand, may engender discord and disgust the thoughtful, though not necessarily irreligious; or, on the other hand, that the best intentions may only develop hypocrisy and cant.

Even Dr. WARING, whose work is characterised by great good sense, falls into the common snare, and remarks—

"In most hospitals there is a rule to the effect that patients of all religious denominations and persuasions may be attended by their respective ministers, at such times as may be most convenient to themselves, or may be fixed upon by the manager. This does not imply the right of such minister to hold a *public* service of any kind, and when at the hospital he should confine his attention to the individual patient to whom the visit is paid.

"With this exception, no one should be allowed to visit the patients with a view to their spiritual edification, excepting at the request or by the special permission of the clergyman who has charge of the spiritual wants of the hospital, and who will make all requisite arrangements to meet them."

Now, we can be no parties to such rules, which savour of anything but liberality. Why, the Surgeon may be a dissenter (Roman Catholic or Protestant) from the Established Church, and yet his steps are to be dogged by a priestly manager, who may pervert the charity which depends on medical skill to the purposes of the lowest sectarianism. Away with this dependence on clerical aid. Let the hospitals be as unsectarian as the science by which they are sustained, and let not the Profession hand over its prestige and its honour to the keeping of the parish priest.

1 On the Advantages derivable by the Medical Profession and the Public from Village Hospitals.
2 Cottage Hospitals: their Objects, Advantages, and Management, by E. J. Waring, M.D. London. 1867.

THE VACANT CORONERSHIP.

THE Coronership for the western division of Middlesex, which, as we noticed last week, is vacant through the untimely decease of Mr. BIRD, is likely to be very hotly contested, and we regret to add that unless the Profession unite to support one of the medical candidates, there is a likelihood that a lawyer may creep in. We think it, therefore, our duty to call on the Profession once more to use its united influence to uphold the principle that only a properly educated medical man should be entrusted with the duty of presiding over a court for enquiring into the cause of a person's death. It is a principle which the profession has a direct interest in supporting, and which only requires to be stated to gain the adherence of the majority of people. It is one, therefore, which our brethren may be called upon in a case like this to urge upon all their patients, who may have a voice in the matter. But assuredly, division in our own camp is likely to endanger it ; and we, therefore, regret to see too many candidates. Dr. HOLT DUNN, with a high-minded regard for his profession, and a generous appreciation of the claims of another candidate, has at once withdrawn from the contest upon which he had entered, and will use his influence in favour of Dr. HARDWICKE, who is already known favourably as the efficient deputy-coroner for the central division of the county, and as an able medical officer of health.

We also hear that Dr. WHITEMORE, who had great prospects of wide professional support, has decided not to go to the poll. This would leave Dr. HARDWICKE alone in the field to represent our profession (for, although there was a wish to see the other scientific men we mentioned last week brought forward, there was never much prospect that either of them would accept the office), but for the appearance of two other candidates, viz., Mr. GEORGE BROWN and Dr. DIPLOCK. It remains, then, for these three gentlemen and their friends to discuss the claims of each with a view of reducing the number of candidates. Division of the medical interests will infallibly advance those of the legal candidates, and we therefore earnestly hope that a friendly arrangement will be made.

Dr. DIPLOCK is, we hear, a gentleman of large fortune, and who could not desire the appointment for the sake of its scanty emolument. Could he not in any way coalesce with the friends of Dr. HARDWICKE, whose experience as a deputy-coroner and officer of health endorse the favourable opinion of the Profession as to his qualifications.

Mr. G. BROWN is a practitioner of several years' standing, and he holds appointments which, to a certain extent, may be incompatible with the Coronership. He is, of course, most competent to pronounce which he would prefer; but the emoluments of the Coroner for Western Middlesex are so slight that we believe the late Mr. BIRD, who held the office for five years, was unable during that time to recoup himself the outlay it cost him to obtain it. It may very likely, therefore, turn out that the office is not worth seeking by so well-established a practitioner as Mr. BROWN. Should this be so, we feel sure that Dr. DIPLOCK, as a man of fortune, will also be likely to retire, and thus that there may be some hope of securing the post to a member of the Profession. There is no time to lose. The lawyers are actively canvassing, and one of the two is almost certain to go to the poll. Only a strong, united effort will avail, and we repeat our hope that every medical man possessed of influence will at once exert it in behalf of his Profession.

It is useless to indulge in platitudes about abstract principles unless we are prepared, on occasions like this, to enter the lists with spirit, and bring all our forces to bear on the issue of the particular case.

While we have been pleasing ourselves with high-flown declamation, other bodies have been busy organising, and the consequence is that while most other portions of the social fabric make their influence felt, the Medical Profession is constantly regretting its position and but feebly expressing its rights. Let us on all occasions be found ready and active, and our power will at once be recognised. This vacancy is but a case in point. First let us select our man ; then by one united effort we may assert our just influence as triumphantly as we did when we placed Dr. LANKESTER in the position of Coroner for the Central Division of the same county.

FEVER NESTS.

THERE can be no doubt that carelessness in some cases, and ignorance in others, are the cause of many, if not most, of the diseases that "flesh is heir to," at all events, of their ascendency. If all knew the existence of danger, and were determined to take every means of avoiding it, we should hear much less than we do of the prevalence of disease in certain localities where it has a marked effect on the death-rate. But there is a degree of recklessness oftentimes with regard to health, which is hardly ever witnessed in other concernments affecting human nature. Men run risks in this respect which would justly terrify them in liabilities far less prejudicial to their well-being. We can only account for this from the fact that they do not think, but pursue their ordinary course unconscious of those surroundings which threaten their very existence. Perhaps it is not to be wondered at that such should be the case with the poor and uneducated, whose utmost energies are taxed to procure the means of subsistence for themselves and their families. In the present day, however, it is matter of surprise that those above them should be equally negligent when they know better, and may become, if not to the same extent, yet, in some instances, victims of their indifference. They, at least, ought to consider that while the sun is shining brightly over head, and nature has on her gayest dress, while the earth teems with plenty, and Providence seems lavish of its bounties, an insidious enemy may, all the time, be lurking in the vicinity of their dwellings. A few cottages closely packed together, and badly ventilated, with insufficient drainage, and cesspools filled with night soil, and decomposing matter of different kinds, making its way through the ground and tainting the well from which the water-supply is obtained, though, to a careless eye, in the splendid summer day all seems fair, may be generating a fever which may spread beyond the immediate spot, and reach those whose condition leads them to suppose that they are altogether exempt from such danger. We refer now more particularly to Winterton, where typhoid fever had long prevailed, and which was visited by Dr. THORNE for the purpose of investigating the cause. He found there all the strange peculiarities we have named, and a great many more amply sufficient to account for the origin and continuance of the epidemic. It is to be feared that this is by no means an isolated case. We could give our own testimony in reference to a village we had occasion to visit last summer. We could tell of bad water, bad drains, disgusting

smells in the midst of a state of perfect unconcern. We shall, however, only state it as our conviction that sanitary measures are not by any means so extensively and persistently carried out as they ought to be. An eruption of cholera sometimes awakens us to our duty; but there is a necessity at all times, and in all places, for watchfulness, which renders it incumbent upon all in their several localities who wish well to their species to seek out, and, if possible, remove whatever may be detrimental to the general health.

As tending to promote the cause of sanitary reform, we are glad to see in the local newspaper a reprint, in full, of Dr. THORNE'S report to the Privy Council on the epidemic at Winterton.

THE MEDICAL BENEVOLENT FUND OF ENGLAND.

THE Committee of the Medical Benevolent Fund has just presented its report, and as the quiet, unobtrusive character of the operations of this excellent charity prevents it from being so generally known as it deserves, we venture to bring it to the notice of our readers. The main object of the Fund is to relieve temporary distress among members of the Profession or their families, arising from illness or misfortune, and during the year 1867, £902 has been thus applied, the number of cases assisted being 106. The Committee meets once a month, to receive and consider applications, and if the facts are duly authenticated, and the distress is found to be real, a sum of money is at once voted. When the applicant can be reached by any Member of the Committee, he is usually visited, and the value of the donation is often enhanced by its judicious distribution, while the personal investigation gives additional security that it is properly bestowed.

There is also an Invested Fund, which maintains 30 annuitants, who must be over 60 years of age. There cannot be more legitimate objects of compassion than the aged, afflicted, and unfortunate of our own Profession, and a charity which affords timely aid to such in the hour of need, without imposing the labour of a canvass, which to the most helpless and friendless is an impossibility, or necessitating publicity, from which the most meritorious often shrink, deserves our warmest support.

The Medical Benevolent Fund was long associated with the name of the late Mr. Toynbee. Since his death, Dr. Sieveking has held the office of treasurer, and he is now succeeded by Dr. Hare. Dr. Broadbent has for several years given his services as Honorary Secretary, and he is now joined in that office by Dr. Thorne. It is no light task which these gentlemen undertake, and we trust many of our readers will send their names to one or other of them as subscribers.

Notes on Current Topics.

Is Consumption Catching?

THE term catching is better than contagious or infectious, for it includes both, and does not lead to mistakes. Those who have seen much of country districts must be aware that a belief in the liability of one member of a family to catch consumption from another is very general. Many a village doctor has tried to laugh his patients out of their belief, and failed.

On the Continent, the notion is much more common, especially in the south. A few years ago, an English peer, whose lady had died in Italy, was called upon to defray the expense of rebuilding the portion of the hotel she had inhabited. A lady, who was for many years under our care, was, while on a visit at Naples, attacked by a cough. The Princess, in whose palace this patient was staying, begged her to keep in one wing, lest it should have to be pulled down, and the patient's gravity was imperilled by the footman bringing everything into her room, and rapidly disappearing as if in mortal terror. Moreover, he handed her letters to her at the end of a silver rod more than a yard long, which she innocently supposed to have been surreptitiously obtained from a church, where it might have been used to light the candles. The people were so afraid of catching the English disease.

Along the Riviera the same belief is prevalent. Some of the people will assure you positively that consumption was unknown until the English brought it; and this is not in the towns alone; but those who understand the dialects and scale the mountains will be told the same by the peasantry. We have heard them argue, that the towns frequented by our countrymen in winter, were very unfortunate in spite of the increase of wealth, on account of the inhabitants being decimated with the English disease. We turn from these popular superstitions, which have so long been ridiculed, to sober seekers after truth in medicine, and what do we find? One tells us that the disease may be propagated by inoculation. Another says that under certain circumstances it may be communicated by one person to another. Then Dr. Budd, of Bristol, a name which is a tower of strength, startles not a few with a statement that consumption is neither more nor less than a zymotic disease —a sort of contagious fever. He is busy arranging his arguments on the subject, and so far as wide-spread prejudice goes, the above facts, for which we can vouch, show that the people will be on his side, although he will find it a much harder task to convince the doctors.

There is no occasion for us to enter here upon the difficulties that surround this notion. The work has already been partly done by able contributors to our pages, and is sure to be continued from time to time.

A Question for the Government.

THE late Government, in April and May, 1866, had charcoal filters fitted to the cisterns which contain the water drunk by the soldiers that garrison the Tower and those in Regent's-park Barracks. The present Government has had these filters removed. Wanted to know—why?

Post-mortem Detraction of a Professional Brother.

SOME time ago we took upon ourselves to reprove a contemporary for making the obituary of an esteemed deceased practitioner the vehicle of its wrath against specialists, and of unjust personal attacks. The charge was replied to in a statement we reprinted. The same journal has again laid itself open to the same complaint. The death of Mr. Salmon is now made the text on which to preach another sermon on specialism, the point of which is that, in the opinion of the select few who rule the shifty politics of the British Medical Association, "the success of St. Mark's Hospital was of unfortunate omen, and has since borne bad fruit in encouraging similar enterprises." We are not about to enter the lists in defence of St. Mark's. That hospital has borne fruit with which St. Mary's might, at one time,

have aspired to divide the honours, had not the latter charity been so jealous as to require its staff to give up all connection with the special institution. And yet the ambitious western hospital evinces a curious annoyance with its rival in one branch of surgery, and brings to bear all its peculiar influence with the association to crush it. The effort is, however, useless, for the public has pronounced on the question, and supports special hospitals as well as the larger charities, and that in spite of the active and unscrupulous crusade against them. Neither do we object to any fair opportunity being taken by any set of men to promote their political ends, or even to further their own interests. We do, however, object, and that very strongly, to obituary notices being made the medium of such attacks upon the honour of professional men and their motives in establishing and serving charities that have been supported by the public. There is something unseemly in seizing upon every such opportunity to indulge in political cant, and ventilate the narrow shibboleth of a faction. In the name of common decency, we once more protest against such tactics. Is our profession so lost to all propriety as to permit journals that aspire to represent it, to indulge in such diatribes over the coffins of its members? We trow not. Even the bitterest enemies of specialism will be sensible that their views cannot be forced upon others by the terrors of post-mortem denunciation. Thus, to make death serve as the stalking-horse of a party, is as incongruous as to propose a quadrille at a funeral, or to dance a hornpipe over a newly-made grave.

The Fever at Terling.

Those who know Terling (and our own acquaintance with the queer little Essex village dates from a dozen years ago) will not be surprised that the epidemic which we lately noticed as prevailing there has been very fatal. Our contemporaries have evinced a, perhaps laudable, desire to publish the facts, but their haste has, in some cases, outrun their information. The partial accounts that have found their way into print must, therefore, not be allowed to do duty for the report of the Medical Officer sent by the Privy Council to investigate the circumstances, and which will, no doubt, be forthcoming in due course. As a proof of this, we may name that Lord Rayleigh's housekeeper, said by one of the medical journals to have died of the fever, is still in excellent health. We are much mistaken, too, if some of the statements so hurriedly printed will not be found, on the publication of the official investigation, to be exactly the reverse of fact.

Cannes and Llandudno as Winter Resorts.

Dr. James Nicol, the Medical Officer of Health for Llandudno, in North Wales, communicates to the *Times* of January 16th, some interesting matters respecting the winter temperature at the above well-known and much-frequented watering-place.

An examination of meteorological tables, kept at Llandudno, and at Cannes, in the South of France, during last December, reveals the rather surprizing fact, that for the month of December last, Llandudno was warmer than Cannes by 3·5 deg.; and that it also enjoyed a temperature more equable, and of smaller range.

On examining the tables, it is noted that the mean temperature of the month of December last, at Cannes, was 39·6 deg., the range for the month 23 deg., and the greatest range between any two consecutive days 18 deg. At Llandudno the mean temperature of the same month was 43·1 deg., the range for the month 18·2 deg., and the greatest range between any two consecutive days 16 deg.

The excellence of the climate of Cannes and the South of France, as a winter resort for a very numerous class of invalids, is now pretty well proved and established, and for those who have not the will or the means to go to so great a distance from home, it will be welcome news to learn that there is a place not difficult of access, in the British Isles, where they can enjoy a warm and uniform winter climate.

Poisoned by Goose-Grease.

The newspapers have published an account of an inquest held last week upon the body of a woman who was alleged to have died after eating a poisoned goose. All the persons who partook of the goose in question were attacked with vomiting and purging. A careful analysis of the contents of the stomach of the deceased was made by Professor J. E. D. Rodgers, of the London Hospital Medical College, who stated at the inquest that he had also examined a portion of the goose fat, cooked and uncooked, and could not detect a trace of any poison, either vegetable or mineral, but it was a well-known fact that the fat of geese occasionally contains poison. Dr. Buchner has recorded cases of that description. The fat contains an acid, and he (Professor Rodgers) had no doubt that the goose in question contained a portion of that acid, which caused the death of the deceased. There would be fat in the giblets. The stomach gave indication of an irritant poison. If the goose had eaten any vegetable poison he should have detected it. The Coroner (Dr. Lankester) enquired whether the close way in which the geese are packed has a tendency to generate the acid? Professor Rodgers replied—Most decidedly; very disagreeable effects are often produced by animal and vegetable food that has been closely packed. Salmon was, also, very often kept by fishmongers until it was bad, and then dipped in "Condy's fluid," which took away the bad smell, but it was dangerous to eat it; it caused vomiting and purging. He knew of three cases of that description. The Coroner remarked that very bad effects were often produced by the eating of animals that had been closely packed, and he instanced a case that occurred in the family of the late Sir Benjamin Brodie, sickness being caused by the eating of Canada grouse. The poulterer gave evidence that the goose was a very fine one. It came from Lincolnshire, and was not closely packed. He had been in business 25 years, and never heard of any one being poisoned by a goose or other poultry. A verdict was recorded that deceased died from eating poisoned goose. We are glad to state that the jury recommended the magistrates to grant Professor Rodgers a higher rate of payment than the Coroner has power to order, which is altogether an inadequate fee for analysing the contents of the stomach.

Country Wells.

Professor Attfield has published in the *Times*, an important letter, provoked by the epidemic at Terling, in which he draws attention to the evil of having the well and drains close together, as they too often are in country places. We have ourselves had occasion to speak of the practice of builders, who, for the sake of lessening cost, will sink wells in proximity to drains. Dr. Attfield concludes his letter with the following simple test for water:

—"Half fill a common water-bottle, cover its mouth with the hand, violently shake for a minute, and quickly apply the nose. If nothing unpleasant is detected, tightly cork the bottle, set it aside in a warm place at about the temperature of one's body for a couple or three days, and repeat the shaking, &c. Water of very bad quality may thus be recognized without the trouble and expense of analysis."

Dr. Richardson's Practical and Experimental Lectures.

Dr. Richardson gave his first lecture of the present year on the 14th, at No. 12, Hinde-street, the subject of anæsthesia being still continued.

A very curious and interesting experiment was performed by freezing, with the ether spray, the brain of a pigeon. In a short time the bird lay on the table in a state of perfect anæsthesia, and Dr. Richardson told the audience that the brain, if examined now, would be seen of a snowy whiteness, and quite bloodless.

After a few moments the pigeon began to recover, *gradual reaction* taking place; then came the most striking part of the experiment, for Dr. Richardson showed that by causing *rapid reaction* the process of recovery was interrupted, and anæsthesia again induced. The way in which rapid reaction was effected was by applying the warm finger over the skull, and after this had been done for a very brief period the bird again fell over in a state of complete narcotism. The brain, if examined in this stage of sudden reaction, would be found quite dark, as if the veins were in a state of extreme varicosity.

Since the last lecture Dr. Versmann has obtained a new anæsthetic by the action of oxide of manganese and sulphuric acid on methylic alcohol. Methylal was the name given to this new liquid, and its chemical composition stated to be $C_3 H_8 O_2$, sp. gr. ·855, and boiling point 108° F. Methylal resembles, in some respects, the formiate of ethyl, which has a chemical composition of $C_3 H_6 O_2$; sp. gr. ·940, and boiling point, 130° F. Neither of these bodies are safe anæsthetics, as they appear to be decomposed in the animal organism, and the resulting compounds are dangerous to life. Hence, is seen the importance of using as anæsthetics bodies which do not decompose in the system, but pass from it unchanged, just as we observe the chloride of ammonium, when taken internally, to pass out of the body quite unchanged in the urine.

If an anæsthetic vapour becomes decomposed in the body, there is the danger that bodies actually poisonous in their action may be produced by such decomposition.

Towards the conclusion of this lecture allusion was made to the observations of Dr. Sedgwick on the mechanical way in which various anæsthetics mix with, and diffuse among, the blood corpuscles, and this admixture of the anæsthetic with the blood was demonstrated under the microscope. There were also exhibited tubes containing blood that was mixed with different anæsthetics.

At the next lecture, on February 11th, Dr. Richardson purposes to continue the subject of the influence of anæsthetics on the blood, and then to take up some highly interesting and important matters connected with their action on the brain.

The Public Health.

The annual rate of mortality in the large towns of the United Kingdom in the week ending on the 11th instant, was 28 per 1000 persons living. In the separate towns the rate was 26 per 1000 in London, 25 in Edinburgh, and 32 in Dublin; 24 in Bristol, 28 in Birmingham, 33 in Liverpool, 35 in Manchester, 30 in Salford, 22 in Sheffield, 29 in Bradford, 29 in Leeds, 30 in Hull, 25 in Newcastle-on-Tyne, and 33 in Glasgow.

There were 1574 deaths in London registered during the week. This is 225 less than the average number for this week of the year, corrected for increase of population.

There were 273 deaths from zymotic diseases, the average number being 364. Measles killed 48 persons, scarlatina 49, whooping-cough 49, typhus 25. Of diseases of the chest we notice 187 deaths from phthisis, 294 from bronchitis, 91 from pneumonia, and 81 from cardiac disease.

The highest day temperature of the week at Greenwich, was 35·9 deg. Fahr. The lowest night temperature was 25·0 deg. The entire range of temperature for the week was, therefore, 10·9 deg., but it was much less during the latter than the earlier half of the week.

SCOTLAND.

In the eight principal towns of Scotland—Glasgow, Edinburgh, Leith, Dundee, Aberdeen, Paisley, Greenock, Perth—the deaths of 2379 persons were registered in the month of December; allowing for increase of population, this number is 90 under that for December of the last ten years. 44 per cent. of the deaths were of children under five years of age. The zymotic (epidemic and contagious) class of diseases proved fatal to 480 persons, constituting 20 per cent. of the mortality; that rate was scarcely exceeded in any of the eight towns. The most fatal epidemic was scarlatina, which caused 131 deaths, or 5·5 per cent. of the mortality; in Edinburgh, 9·2. Typhus was the next most fatal epidemic, having caused 119 deaths, or 5 per cent. of the total mortality. The deaths from inflammatory affections of the respiratory organs, with consumption, whooping-cough, and croup, were 900 of the whole 2379. There were 71 deaths from violent causes, two of them suicides; four deaths resulted from intemperance. The deaths of five women were registered who had passed their 90th year; the oldest was an unmarried woman, lately a domestic servant, aged 98. The births registered were 3106; this number was exceeded in the month of December in 1864 and 1866. The marriages were 840, which, allowing for the increase of population, is 20 under the average of the month for the last ten years. The month began with a severe storm, but the weather on the whole was moderate, if not absolutely fine, the barometrical pressure having been high, and its variations small; the mean temperature, 39·7, was slightly less than for an average December, and the quantity of rain and wind considerably less. The greatest depth of rain was at Glasgow, 4·88 inches; and the least depth at Dundee, 0·95 inch. The prevailing direction of the wind was W.N.W.

IRELAND.

The return just issued records 18,549 deaths registered in Ireland in the third quarter of 1867, being in the annual proportion of 13·4 per 1000 of population. Scarlatina prevailed and was endemic in many districts. In Brookeborough, Lisnaskea, nearly one-half of the deaths were caused by this disease. There were only two fatal cases of small-pox during the quarter, and the registrars furnish evidence in support of the benefits arising from the Compulsory Vaccination Act; in some districts there

had not been a case of small-pox for three years. Whooping-cough was very fatal in some parts of Ireland; and typhia, or typhoid fever, was more prevalent than typhus. A fatal case of fever occurred in the Rathcoole district, Celbridge, accompanied with ecchymosis, or dark patches of blood under the skin; the duration of illness being only 14 hours. At Clonmany, Inishowen, the people suffered from chest affections, which the registrar attributed to their occupation; he states that they "are up all night gathering seaweed." At Youghal, Clashmore, fever and malignant typhus overran a whole country side, until a panic seized the population, and even the schools were closed. This outbreak of fever was attributed to the close proximity of the invariable dunghill to the cabin of the labourer. The Registrar-General, however, reports that on the whole the health of the people has improved within the last few years, and many sanitary improvements have been adopted. Among the exceptions to the general progress of hygienic measures may be mentioned Waterford city, where the sanitary arrangements are reported to be the worst in Ireland. The fatal epidemics were confined to a few districts; employment for labourers was abundant, and wages were good. The registration of deaths in Ireland continues to be very imperfect, and attention is directed to certain districts where the deaths registered during the quarter ranged from an annual ratio of about one in 100 to one in 200 of the population. The birth-rate of the quarter was 24·7 per 1000 of population. The number of births registered during the quarter was 34,248, and the number of emigrants was 18,475; a decrease, therefore, of 2776 appears to have taken place in the population of Ireland during that period. In the corresponding quarter of 1866, the emigrants numbered 19,640. The number of marriages registered in Ireland during the second quarter of 1867 was 5166; in the corresponding quarter of last year the number was 6045. Of the 5166 marriages, 3101 were between Roman Catholics, and 2065 were between Protestants. The mean temperature of the air for the quarter ending the 30th of September, 1867, was 58·5 deg. The rainfall measured 6·058 inches. The mean height of the barometer was 29·786 inches.

Dr. John Taylor, M.R.C.P., relates in last Saturday's *Lancet*, a case of Cæsarian section, occurring in his practice, and in which the double success of saving mother and child has been attained. The operation was performed by Mr. Baker Brown, on the 28th of December last, at the London Surgical Home. Messrs. Hubbard, Watts, and Strange, and Dr. Holt Dunn, as well as Dr. Taylor, were present, and assisted the operator. All these gentlemen concurred in the necessity of the operation.

The heads of the Army and Navy Medical Department, are likely to get a K.C.B. In no other country is the Profession left without distinctions to the extent it is in our own.

We have had a letter this week from Abyssinia, from a medical man on duty with the forces. He speaks encouragingly of the climate and of the provisions made for the comfort and health of the troops.

The French Hospital in London is laying a broad foundation, and will probably, in a short time, be in a condition to extend its sphere of action.

The prize of £100, offered by the Ladies' Sanitary Association, for the best essay on Vaccination, has been awarded to Dr. Ballard, Medical Officer of Health for Islington, a Graduate of the University of St. Andrews. The adjudicators were Dr. Richardson, Dr. F. C. Webb, and Mr. J. F. Marson.

The winter weather in the south of Europe, on which we commented last week, has become less severe, simultaneously with the break up of our own frosts.

Society Proceedings.

SURGICAL SOCIETY OF IRELAND.

Dr. Adams, President of the College, in the Chair.

This Society met on Friday, January 3rd, at the Royal College of Surgeons.

Dr. Frank Thorpe Porter read the following paper:—

PENETRATING WOUND OF THE CORNEA.

Mr. President,—I submit for your consideration a case of "foreign body in the right eye-ball," which presents some points of interest. The patient, an agricultural labourer, aged 25, called on me on the 8th of last June. He made the following statement:—"Towards the close of last March he was at work on a farm, and was employed to repair gaps in hedges. During the performance of this work a thorn branch came in contact with the right eye. He had to leave off work owing to the severe pain. He was blistered, poulticed, and purged, but experienced no relief. The pain soon extended over the right side of the head. Owing to the severity of the inflammation, the closing of the right eyelids could with difficulty be accomplished. The power of sight was lost in the right eye, and that in the left became weak after the lapse of some weeks. He slept but little, and became very much emaciated in appearance. He was in a state of dreadful suffering for almost three months, but he occasionally obtained relief by means of anodyne embrocations. He followed his employment, but often had to desist owing to severe paroxysms of pain." When I examined the eye it was one mass of destructive inflammation. The conjunctiva and sclerotic were intensely congested. The cornea was ulcerated and covered with opacities. The iris was in an advanced state of inflammation, and was attached to the cornea at the pupillary margin. The pupil was contracted and irregular in outline; the eye-ball protruded beyond the lids. I perceived an ulcer on the cornea over the inner edge of the pupil. I suspected that a foreign body was lodged in this ulcer, and on passing in a forceps I extracted a large thorn. I ordered a zinc collyrium. This caused the congestion to disappear in two days. I prohibited all stimulants. I substituted atropia for the zinc lotion, and prescribed frequent blistering and purging. The blisters were applied to the temples, behind the ears, and to the nape of the neck. In one week the acute symptoms subsided. I then administered tonics, with alteratives and with absorbents, but I avoided the use of mercury, for reasons I am prepared to explain. In three weeks' time the sight of the injured eye improved, and the patient could distinguish between light and darkness, and in six weeks he could distinguish large objects. In two months the opacities on the cornea commenced to disappear, and the pupil assumed more of its natural appearance. When I last heard from the patient he was able to distinguish small objects with the aid of a good light. He is now strong and active, and suffers no pain or any inconvenience at his work. I have suggested to him the prudence of consulting a specialist, but there were difficulties in the way of such a step, as my patient resides at a long distance from Dublin. The case has turned out well, considering the extensive injury and the length of time the foreign body had been lodged in the eye-ball.

The President observed, that as two more communications relative to the eye were to be made, he thought it advisable to hear them first, and then discuss the three.

CALCIFICATION OF CRYSTALLINE LENS AND VITREOUS BODY.

Dr. Croly said that, about a month ago, having finished the demonstration of an orbit in the College School, he took

out the eye-ball for the purpose of showing the vitreous body, and the position of the crystalline lens. On opening the sclerotic, the vitreous body was absent and the cavity empty. A well-marked bony plate occupied the situation of the retina. On examining the crystalline lens he found it also converted into a calcareous deposit.

Dr. ARCHIBALD H. JACOB communicated a

CASE OF SUB-CONJUNCTIVAL DISPLACEMENT OF THE LENS, WITH COMPLETE TRAUMATIC MYDRIASIS, REMEDIED BY MECHANICAL MEANS.

Dr. JACOB said a double interest attaches, Mr. President, to the case which I am about to bring under the notice of the society, firstly, as an instance of a very rare and remarkable injury of the eye; and, secondly, as an illustration of a highly successful substitution of mechanical adaptation for the natural functions of which the eye had been deprived. I need not detain the society with any history of the case prior to the time when it came under my notice, as such a narrative is not relevant to the points to which I wish to direct its attention.

On the 6th of May, 1866, exactly a year before I saw him, the patient, T. K., a farmer in the north of Ireland, while superintending some works on his own land, was accosted suddenly from behind, by a person who was at the moment about to lay a hand on his shoulder. Turning round quickly his right eye met the out-stretched hand of the speaker, and a very violent injury was then and there inflicted with the thumb-nail. The character of the injury as it presented itself subsequently, I will presently explain. It was followed by pain, described by him as that caused by "smoke from unseasoned timber," and by total blindness, which was looked upon as irremediable, and which subsequently only recovered in a very partial degree.

For this injury he was substituted to the usual depletory treatment for seven weeks, at the end of which period the supervening inflammation had, in great measure, subsided, without any marked improvement in the sight. Of the appearance presented by the eye, or the injury diagnosed by his medical attendant, he could give me no information.

About seven weeks afterwards he was attacked with sympathetic ophthalmitis in the left eye, for which he was treated on the most vigorous plan by repeated leeching, the application of belladonna, and an almost heroic course of mercury. This treatment appears to have had no effect whatever on the sympathetic inflammation, for on presenting himself to me, which he did in the hope of saving that eye, it was hopelessly blind. the pupil closely adherent, the iris tremulous and the vitreous humour softened. After satisfying myself of the conditions, and giving it as my opinion that vision was irremediably destroyed, I asked him about the other eye. He replied, "Oh, there is no use looking at it, it was lost long ago."

On further inquiry, I ascertained the circumstances under which it had been lost, and learned, further, that since the treatment adopted for the sympathetic inflammation in the other eye, a marked improvement had manifested itself in the injured one.

On examining it, I observed the following remarkable appearance. The cornea was entire, and perfectly transparent. No trace of the iris, however, was visible, not even a lacerated shred, insomuch that, at first sight, I assumed that it had been altogether torn away. The posterior media appeared perfectly transparent, for a light placed in front of the patient was reflected from the fundus. No sclerotic or corneal laceration was visible, but close to the superior and internal junction of the sclerotic and cornea, lay a yellowish, cheesy-looking body, covered by the unbroken conjunctiva, and lying between it and the sclerotic. This I recognised at once as the lens which had been forced through a laceration in the sclerotic, and now lay between the conjunctiva and sclerotic, and, as I judged, covering the wound through which it had escaped. Having diagnosed so formidable an injury as sclerotic rupture, complete evulsion of the lens and total traumatic mydriasis, I had little hopes that the retinal sensitiveness had survived the injury. As much for curiosity as any other reason, I placed the patient before the ophthalmoscope, and was surprised to find the retina in a very excellent condition of preservation, considering the condition of the eye. There were one or two small ecchymoses, and a slight detachment of the retina, close to the ora serrata, but the general surface of the fundus might almost be said to be natural.

It at once struck me that the loss of sight, which I ascertained, on inquiry, was rather an apparent blurring of all images, than any loss of the natural degree of illumination, might be largely dependent on the removal of the natural accommodatory appliances, and after further investigation, I satisfied myself that the loss of vision was not greater than might be supposed to arise from the admission of lateral rays through the ciliary opening, and from the absence of the lens.

In order to satisfy myself how much of it was due to the loss of the iris, I blackened a piece of card, and having cut a hole the size of a normal pupil in it, directed the patient to go out and walk up and down the street, and look through the opening. In a moment he returned, and announced to me a very remarkable improvement with, however, the same want of definition of the images as before. I therefore determined to endeavour to remedy the loss of the iris and lens by mechanical means, and I directed the patient to return home, and to come to town again in ten days. I instructed Mr. Spencer of Grafton-street to make for me the spectacles which I produce for the inspection of the meeting. I adopted for the framework one of the ordinary wire-gauge goggles, with the object of cutting off all lateral rays of light, the nose piece being made reversible, so as to enable the left eye of the spectacles to be turned over to the right side when required. In each eye I had inserted a thin brass diaphragm blackened and perforated with a hole, a twelfth of an inch in diameter. In front of these diaphragms I had placed a double convex lens of 2½ inches focal length, and in the other a similar lens of 4½ inches, these being the powers which I have generally found most useful in cataract cases. It will be understood that the object of this arrangement was to enable the spectacles to be used as well for near as distant objects, by simply reversing the glasses. The arrangement proved satisfactory beyond my most sanguine expectations, for, on the return of my patient, and his putting on the glasses, he was enabled to read without difficulty the smallest of Jægers' test types, which I produce for inspection. On reversing the glasses, and going into the street, also, the result of the adaptation for distant objects appeared equally successful, for the patient was able to read the name on the corner of the street at a distance of about thirty yards. In a couple of days I saw him again, and he expressed himself as having nothing to desire either in the extent of his sight, or the comfort of the spectacles.

Subconjunctival dislocation of the lens is a condition mentioned in most of the standard Ophthalmic treatises as peculiarly rare, and it will be easily understood how seldom an injury sufficient to effect a rupture of the sclerotic coat can occur without including the conjunctiva in the lesion. It is evident that the injury must be inflicted with a blunt object, and that the loose attachment of the conjunctiva enables it to yield before a blow, which may rupture the more rigid sclerotic. Cases are even recorded where the lens has become fixed half way out of the wound, a still more remarkable condition. Plate 19 of "Sichel's Iconographie Ophthalmologique," which lies on the table, contains two very beautiful illustrations of the condition—one of which, figure 4, almost exactly represents the position and appearance of the lens in my case. In both of those which he narrates, M. Sichel removed the opaque lens. It would have been easy for me to do so, but as the patient was indisposed to submit to operation—there being only one very delicate eye between him and total blindness—and as for nearly a year the lens had remained *in situ* without causing the least annoyance, I allowed the patient to return home with a warning, that if it became troublesome, it must be removed at once.

As I have said, the lens in my case was perfectly opaque, and of the cheesy consistency, this was only to be expected, as the capsule appeared to be ruptured, and as a year had passed since the accident; but Mr. White Cooper mentions a case in which the lens, having been dislocated beneath the conjunctiva, remained for a considerable time transparent.

The injury to the retina appears also to be usually less considerable than might be anticipated, for in each of M. Sichel's cases, considerable improvement, though of no means as much as was experienced by my patient, occurred from the use of cataract glasses. I presume, therefore, that the most hopeful cases are those in which the intra-ocular hæmorrhage is slight, and the absorption of the blood, which, in this case, followed on the administration of the mercury for the inflammation of the other eye, almost complete.

Mr. Henry Power, in his lately published work, figures and relates a case in which for nearly three weeks, the dislocated lens was overlooked, and on extraction at the end of that time, was transparent. He also says that, in these cases, sight is usually irrecoverably lost.

Dr. MACNAMARA wished to be informed of Dr. Frank Porter's

reasons for abstaining from the use of mercury? He knew that in the present day there was a crusade against mercury. He joined in the crusade against the abuse of it, but he thought these were cases in which it could be given with advantage.

Dr. FRANK PORTER had several reasons for not giving mercury. In the first place, the patient would not go into hospital, but remained at his out-door work, and he did not consider it prudent to put him under the influence of mercury, when he was exposed to the inclemency of the weather. Moreover, the man had a scrofulous appearance, and scrofula was in his family. At the time he saw him, the acute inflammation had subsided, and therefore he resolved to try iodide of potassium, and some other remedies.

PURPURA MALIGNA COMPLICATED WITH CEREBRO-SPINAL ARACHNITIS.

By J. H. BENSON.

Mr. President—The case which I have the honour to lay before the Society this evening, will prove, I hope, of some interest. It is a case of that fearful disease which began to show itself in Dublin early in the spring of 1866, and was variously named "black death," "purpura maligna," "febris nigra," "cerebro-spinal fever," and by some made synonymous with "cerebro-spinal arachnitis."

There seems, still, but little known as to its exact nature, and, therefore, any case of the kind where the symptoms and pathological appearances can be recorded and compared cannot fail to be of interest, as adding a mite to our scanty stock of knowledge of its nature.

T. K., æt. 21, a labouring man, came to Dublin from the county Carlow, on Saturday, Nov. 4th, 1867, and was admitted the same day into the wards of the City of Dublin Hospital.

He was suffering from strumous ophthalmia, and was placed under the care of Dr. Jacob.

At the date of his admission he complained of nothing but the affection of the eyes, and seemed perfectly healthy in every other respect. All next day, Sunday, he remained in the apparent enjoyment of good health and excellent spirits. He was cheerful and amusing in his manner, and partook heartily of dinner and supper. However, soon after he retired to bed, he was seized with a rigor, and vomited twice; but passed the rest of the night without attracting any attention on the part of the nurse, or his fellow-patients, from whom I have collected the latter facts. Next morning he was seen to lie apparently in a heavy sleep, out of which he could not be roused. In the middle of the same day, Monday, I saw him in consultation with my friend and colleague, Dr. Jacob, whose patient he had been. The man was then lying on his side; his respiration was of a heavy sibilant character, its frequency being 41 in the minute. His eyes were half open. The pupils were natural, and obeyed the stimulus of light. When addressed loudly he either took no notice of it or else moaned, or muttered something inarticulately; and when an examination of the body was being made he resisted, drew up the clothes hurriedly, or threw himself about in bed, changing posture repeatedly from side to side, and muttering unintelligibly all the time.

The pulse was weak, frequent, and extremely irregular. When counted, results were obtained in consecutive minutes varying from 90 to 125. The respirations, as I said, were about 41 in the minute, but besides their frequency and sibilant character, there was another remarkable feature connected with them. Very similar to what is observed in many cases of fatty degeneration of the heart or diaphragm, the respirations rose and fell in force, and depth, and frequency—at one moment being slow and noiseless, and after a few seconds becoming gradually more and more noisy, deep, and rapid, and again falling by degrees till they became almost natural. The interval of time between two successive maxima or minima of intensity varied slightly, but was about one minute.

With this rise and fall of the respiration there was a strange coincidence of fluctuation in the pulse. When the respiration was at its minimum the pulse was comparatively slow and steady, scarcely remitting, not weaker than at other moments, and easily counted. But as the respiration rose to its maximum the pulse became so rapid, intermitting, uncertain and fluttering, that it required an effort to count it, and the actual number of beats became more a matter of conjecture than of certainty.

My young friend, Mr. Haddon, a most intelligent pupil, remarked to me the strong general resemblance which the restlessness and other symptoms of the disease, in this man, bore to the case of a friend of his who had died some months previously from the so-called "febris nigra," and on examining the body we discovered numerous small, dark, irregular-shaped, purple spots, varying in diameter from one to five, or six lines, and not having very sharply defined edges. They were not affected by pressure. Some were very slightly elevated, others not at all so. They were found chiefly on the thighs, legs, buttocks, and back. The abdomen and chest were perfectly free from morbid discolouration. A few small spots occurred on the face, and a minute one on the right conjunctiva of the lower lid near the sclerotic. The skin was dry, but not hot. The patient had passed the usual quantity of urine, which was of a healthy appearance. The bowels had been moved naturally on the previous day.

The head was ordered to be shaved and blistered with Tichborne's vesicating collodion. All attempts to administer either medicines or aliments by the mouth failed, as the patient spit them, or rather blew them out of the mouth through the lips. Enemata were, therefore, administered every second hour, consisting of brandy, sulphuric æther, Hoffman's æther, and beef-tea made from Liebig's extract of beef.

In the evening the patient was found still restless, and tossing from side to side, requiring the constant attendance of the nurse at his bed-side to prevent him throwing himself out of bed. The respiration was more natural; no hissing. The ascending and descending character of the respiration was less marked. The patient was capable of being roused to a slightly conscious state when loudly addressed. He put out the tongue when desired, and it was seen to be dry in the centre with a red tip and edges; it was not tremulous. He would answer questions in the monosyllables, "yes" or "no," and would then talk or mutter about something totally irrelevant to the subject. In this way he denied the existence of any pain at one moment, and at the next affirmed that it was present, sometimes in the head, and sometimes in the chest, abdomen, or elsewhere. He would take stimulants by the mouth, and was somewhat obedient. The pulse was not so irregular, was less fluctuating, and was stronger than in the morning.

Tuesday.—The restlessness was unabated. Sordes was collected on the lips and teeth. The tongue was dry in the centre, and red at the tip and edges as before. The pulse was stronger and more regular; frequency about 112. The dark purple spots had not increased either in size or in depth of colour.

It was ordered that he should continue his stimulants and beef-tea, and that he should have a larger portion of the scalp vesicated.

In the evening the pulse was down to 90, and was full, strong, and almost deserving the description of being regular. There was less sordes about the mouth. The tongue was not so dry.

The patient answered questions better and more intelligibly than at any previous period of the illness, but was still delirious and very restless.

The temperature in the axilla was found to be 99°·9.

Wednesday.—The patient passed a restless night. He was still delirious, and throwing himself about in bed. The pulse was found to have risen; it was then 102, irregular, remittant, but moderately full; the tongue was more dry than on the previous evening; he was still unconscious. The temperature in the axilla could not be ascertained owing to his extreme restlessness, but in the rectum it was 100°·2, since the previous evening a number of papular spots had appeared scattered over the body, but especially on the legs and the lower part of the back. They partly disappeared on pressure. The original dark eruption had not changed in character, except that it began to assume a slightly reddish tinge.

He was ordered bark, chlorate of potash, hydrochloric acid, spirits of nitric æther, and sulphuric æther in a mixture, and to continue the use of the brandy and beef-tea.

In the evening he complained of some stiffness in the neck, but denied the presence of pain or uneasiness either there or elsewhere. There was no retraction of the head, nor any tenderness felt along the spine. The pulse was 114, and was steady, regular, and moderately full. By this time there was a total absence of the ascending and descending character of the respiration. The patient was still extremely restless, though not so much so as hitherto. The tongue was again very dry but not quivering. The first sound of the heart was strong and natural. The papulæ, which were discovered in the morning, had not increased in number. The original purpuric patches had not further altered. The temperature in the

rectum was 101°·2. He was ordered a purgative enema, and to go on with the stimulants and beef-tea.

Thursday.—The patient spent the previous night in the usual restless way; pulse 108, and remarkably strong, full, and regular; tongue cleaner than on the previous night. The man denied the existence of pain anywhere, yet he was observed to wince slightly when an attempt was made to bend the head forward so as to approximate the chin to the chest. The temperature was 101°·4.

He had been going on apparently as well as usual throughout the day, but in the evening he rapidly sank, and died almost without warning.

In making the post-mortem examination, I secured the valuable assistance of my friend and colleague, Dr. Hewitt, who kindly took the following notes:—

Autopsy, twelve hours after death.—Rigor mortis fully established; the hands, portions of the anterior surface of the lower extremities, the backs of the legs and thighs, the loins and back are of a mottled plum-colour, which disappears on pressure, but those parts of the body which come in contact with the wooden bier on which it lay, are perfectly colourless.

The spots observed before death do not disappear on pressure and are not perceptibly raised, they are still visible on the legs, thighs, buttocks, and loins, and they vary much in size and shape.

The face and neck are also, in parts, of the same purple black colour, but these do not present the same ecchymotic appearance observed in other cases.

The pupil of the left eye is dilated, that of the right is contracted.

On making an incision through the scalp, form ear to ear, a considerable quantity of dark fluid blood oozed from the vessels, and a similar oozing took place from the vessels of the bone when the scalp was torn away.

The cerebral sinuses are not much distended, but the inner surface of the dura mater is much congested.

The entire surface of the cerebrum is very red, and in the grooves corresponding to the sulci, there is a small quantity of greenish-yellow lymph underneath the arachnoid; a much larger quantity exists at the base of the brain in the fissures of Sylvius, in the circle of Willis, and, in less quantity, over the pons varolii and the middle lobes of the cerebrum. The exudation is soft and almost purulent in appearance, and when viewed by the microscope is seen to consist almost entirely of pus cells.

There was a considerable amount of bloody serum, which welled up from the base of the brain when the tentorium was divided.

The blood in the vertebral veins was dark and fluid, and did readily coagulate, and the coagulum when formed was readily broken down. Some bubbles of gas were seen in one or two of the cerebral veins, and the same appearance was observed in the internal mammary vein.

The medulla oblongata was congested. The cervical portion of the cord was removed, and although considerable congestion was evident there was not a trace of either lymph or pus present. But when the entire column was laid bare, it was found that there was an abundant sub-arachnoid exudation extending throughout the dorsal and lumbar regions as far as to the extremity of the conda equina.

This exudation proved to be pus. No unequivocal lymph was found. The substance of the cord was not softened nor otherwise visibly altered.

The brain substance was a little softened; there were a great many bloody points visible in the cerebrum; the ventricles contained some bloody serum which, when examined under the microscope, was found to contain both blood and pus cells; in the posterior corner of the left lateral ventricle there was a very small quantity of pus on the free surface of its lining membrane.

The corpora striata were found to contain several vessels loaded with dark fluid blood.

In the Thorax.—Some old adhesions were found tying down the right lung, which was considerably congested, and presented on its posterior surface a great many dark purplish-black spots, which, on section, were found to extend very slightly into the substance of the lung, and were very similar in appearance to the cutaneous stains. The left lung was much more congested, the entire of the lower lobe was dark and solid, refusing to crepitate on pressure; this was completely limited by the fissure, the upper lobe being only slightly congested.

The internal surface of the pericardium was perfectly smooth, but in some parts there appeared an ecchymotic staining under the serous layer. It contained a small quantity of yellow purulent fluid. The heart was small, but otherwise healthy.

The liver was greatly enlarged, and very soft and congested; and the gall-bladder was almost full of dark green viscid bile, which afforded the usual "play of colours" when treated with nitric acid; but which gave no result with Pettenkoffer's test.

The internal surface of the gall-bladder presented the normal reticulated structure, and was stained of a dark green.

The stomach contained a quantity of viscid bloody mucous, and its internal surface was intensely congested, the veins being greatly enlarged and turgid with fluid blood, and the capillaries much injected.

The peritoneum was healthy.

[On account of the pressure on our columns, the remaining portion of this Report is unavoidably held over until our next.]

Correspondence.

MEDICAL INVENTIONS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Have you ever heard of, or known, the results of water spray in the treatment of burns or scalds, in the first and second degree?

Have you ever heard or known of a musico-chordal stethoscope for accurately detecting the sounds of the heart, arteries, or lungs, in health or disease? Also, early pregnancy?

Submit these questions to the Medical Profession through your honest journal, as I have reason to think my ideas are original, and if they are, shall claim them before the medical public, by facts and statements, proving their value.—Yours truly,

A MEDICAL INVENTOR,
AND MEMBER OF COUNCIL OF THE ROYAL INVENTORS' INSTITUTE OF LONDON.

London, 18th Jan., 1868.

MIDDLE-CLASS LUNATIC ASYLUMS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your number of yesterday's date, I find an article upon the want of Middle-class Lunatic Asylums, where suitable accommodation could be had at a moderate charge. I beg to inform you that this accommodation has been, for some time past, provided by the Magistrates of the County of Dorset, at the Forston Asylum, near Dorchester, under the management of Mr. J. G. Symes, and which has given general satisfaction. —I am, Sir, your obedient servant,

T. J. EAMES BROWN, M.R.C.S. Eng., & L.S.A.

Dorchester, 16th January, 1868.

QUACK PAMPHLETS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I enclose for your inspection, a copy of a most abominable quack pamphlet, which has on two occasions during the present and past months, been extensively distributed among the young people of both sexes in this town.

The merest glance at its disgusting contents, will convince you that it is demoralizing in the extreme, and that the scoundrel who penned it has committed a serious crime against society and morals.

A country gentleman, of independent means, and the father of a large family, told me to-day, that a copy of the pamphlet in question had found its way into his house, and he expressed his surprise, in very indignant terms, that such fellows as the author should be allowed to corrupt the youth of the country without let or hindrance.

Is there no means by which the public can be protected from this obscene quack?—Your obedient servant,

JACQUES.

Clones, Jan. 14, 1868.

CORONER FOR THE WESTERN DIVISION OF MIDDLESEX.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As soon as I found out that Dr. Hardwicke was also a candidate for the above, I felt it to be my duty to retire from the contest, knowing he could appeal with the greatest confidence to the way in which he has for years performed the duties of Coroner (as the deputy to the largest division of the county.) Trusting the profession may be united upon this

matter, and only send *one good man* to the poll, who can and has a right to command success, I am, sir, your obedient servant, HOLT DUNN.

Gleanings.

MEDICAL PATENTS.—A Letter on the Patenting of Inventions in connection with Medicine. By John Chapman, M.D., M.R.C.P. Reprinted from the MEDICAL PRESS AND CIRCULAR. (Trubner.)—In this pamphlet the well-known advocate of the ice-bag as a therapeutical agent reprints a letter which was published in the MEDICAL PRESS AND CIRCULAR, but rejected by the *British Medical Journal*. Dr. Chapman brings two charges against the profession—one of completely ignoring his theory by declining to discuss it; and the other of attempting to ignore him by excluding him from its societies. In point of fact, Dr. Chapman is at war with the faculty on a point of etiquette, or, as those who consider the question a grave one would say, a point of ethics. It is a recognised principle among medical men that the patenting of inventions relating to the treatment of disease is objectionable, and tends to lower the dignity of the profession. Dr. Chapman has invented and patented a peculiar form of bag for the application of ice to the spine, and for this offence an effort is made to taboo him. To go into the matter fully would involve a greater space than we can afford, for it would require a discussion of the whole principles of the patent protection. But, admitting that patents are justifiable, we see no rational grounds on which the profession can object to the steps Dr. Chapman has taken. Of course, the traditions of the faculty, the spirit of conservatism, and so forth, all tend to oppose the patenting of medical instruments; but beyond these motives of prejudice we see no logical objection to the practice. Medical men urge that if a physician patents an instrument, he has the power of unduly promoting the sale and use of his invention. This is, however, an assumption, and one which involves (*a*) that the practitioner is unconscientious, and (*b*) that his efforts in an unfair direction would escape detection. Till this assumption can be shown to be true and to be of general application, we hold that Dr. Chapman's view is unimpeachable. The analogy which Dr. Chapman induces between the patenting of an apparatus and the registration of a copyright is more apparent than sound, especially in its application to the point at issue. The dishonest practitioner may advise his patients to employ an instrument of his invention, but he can hardly do much to promote the sale of a book. It certainly appears hard and unfair that the fruit of a man's brains should fall into the hands of a trader—as in the case of Dr. Richardson's *un*patented spray-producer—and that the original inventor should be rewarded with barren honour alone. It seems to us, therefore, that Dr. Chapman's arguments are in the main perfectly reasonable; and we cannot but think that the medical journals have displayed a feeling quite out of accordance with the true spirit of the press in refusing insertion to Dr. Chapman's letter.—*London Review.*

HEALTH OF SCOTLAND.—In the month of November last the deaths of 2049 were registered in the eight principal towns of Scotland—Glasgow, Edinburgh, Leith, Greenock, Dundee, Aberdeen, Paisley, and Perth. Allowing for increase of population, this number was 293 under the average of the month for the last ten years, so that the month of November was unusually healthy. Of the 2049 deaths, 959, or 46 per cent., were those of children under five years of age. In Aberdeen, 26 per cent. of the deaths were under five years of age, while in Greenock, Glasgow, and Paisley the proportional numbers were 50, 51, and 55 respectively. The epidemic and contagious class of diseases proved fatal to 457 persons, constituting 22 per cent of the mortality. This proportion was scarcely exceeded in any of the towns. Typhus was the most fatal epidemic; it caused 131 deaths, or 6·3 per cent. of the whole mortality. In Aberdeen 9·5 per cent. of the deaths were from that cause. Next to typhus, scarlatina was the most fatal epidemic; it caused 108 deaths, or 5·3 per cent. of the mortality. Whooping-cough caused 69 deaths, and diphtheria 21. The deaths from affections of the respiratory organs amounted to 460, besides 208 from consumption. There were 54 deaths from violent causes—three were suicides. One death was caused by intemperance. One male and three females had reached the age of 90 years and upwards, the oldest of whom was a tailor, aged 95. The births registered in November, in the eight towns, were 3150, a larger number than in November of any of the previous ten years. The marriages were 899, being about 22 above the average of the last ten years. The month was chiefly distinguished, in a meteorological point of view, for dryness and warmth, with the wind generally from the W. N. W. The mean temperature of these towns 42·2, was 1·3 deg. above the average. At Dundee 0·40 in. of rain fell; at Greenock 1·84in. fell.

Medical News.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the Licences in Medicine and Midwifery, in October, November, and December last:—

Thomas Edward Carroll, Dundalk; Edward Joseph Curran, Enniskymon; William Henry Dodd, Killorglin; Henry Eames, 8, Upper Fitzwilliam-street; Frederick Fitzgibbon, Rosscarbery; Peter Thomas Frazer, Donaghmore; Albert Halahan L'Estrange, 4, Belgrave-road; Francis Adolphus L'Estrange, 4, Belgrave-road; Richard Macken, 5, North Earl-street; Matthew Henry Molloy, Dromore, County Tyrone; Hussey De Burgh Twiss Riordan, Youghal; Robert Henry Robinson, Parsonstown; Hugh Brady White, Killmoylan; Thomas John Wilkin, Lisbellaw; Evan Williams, 1, Arundel-place, London.

The following obtained the Licence to practise Medicine:—

Richard Vincent M'Carthy, 4, Upper Ely-place; William Daniel Moore, M.D.Dub., 40, Fitzwilliam-square; Daniel Thornton, Kinnetty; Thomas Torney, M.D.St. And., 8, Blackhall-street.

The following obtained the Licence in Midwifery:—

John Brown, L.K.Q.C.P., 22, North Frederick-street; John Francis Fitzpatrick, M.D.Queen's Univ., Mallow; William Marcus M'Dermott, L.K.Q.C.P., Foxford; Thomas Purcell, L.K.Q.C.P., 71, Harcourt-street; George Vesey Wood, M.D.Queen's Univ., 1, Vesey-terrace, Rathgar.

MEDICAL CHARITIES.—The funds of the following institutions have just been augmented under the will of Mr. Jabez Legg, of Stratford, Essex, who has bequeathed £100 each to the West Ham, Stratford, and South Essex Dispensaries. Mrs. Elizabeth Bond, of Devonshire-place, has bequeathed to the Middlesex Hospital £100; the Newman-street Lying-in Institution, £50; the Charing-cross Hospital, £50; the Consumption Hospital, Brompton, £100; and the St. Marylebone General Dispensary, £50. Mrs. Maria Otley, of Little Gonerby, has bequeathed to St. George's Hospital, £70; to the Lincoln Hospital, £50; the Lincoln Lunatic Asylum, £50; and a like amount to the Hospital for Diseases of the Skin. Each of these benevolent individuals has left liberal bequests to other institutions not strictly medical.—*Med. Times and Gaz.*

THE Examiners for the Radcliffe Travelling Fellowship, give notice that the next examination will commence on Monday, February 3, at 10 A.M., in the Museum. Candidates are requested to forward notice immediately to Dr. Acland of their intention to present themselves. H. W. Acland, D.M.; G. Rolleston, D.M.; and B. C. Brodie, M.A., examiners.

NOTICES TO CORRESPONDENTS.

Contributions should be *legibly* written, only on one side of the paper and *must be* in the hands of the Printer eight days previous to their appearing.

When proofs are forwarded it is of the utmost importance that they should be corrected and returned without delay.

OBSTETRICUS will find the new elastic band made by Messrs. Pope and Plante, of Waterloo-place, a great improvement upon the ordinary abdominal belt. Its advantages are, the lightness of the material, and the facility by which it can be enlarged, when needful, without unfastening.

Dr. CHESHIRE, Birmingham, would oblige by forwarding a second copy.

SIGNOR ANACLERIO.—The copies have been sent to the parties named.

Dr. G.—We cannot well re-open the subject, but will keep your note before us for a time.

F. E. M.—Not by any means an easy case for diagnosis.

Communications with enclosures received from Dr. Davies, Pershore; R. Tatham, Esq., Burton-in-Horisdale; Dr. J. W. Clements, Lindley; Dr. Lloyd Roberts, Manchester; Dr. Day, Stafford; Dr. Von Tunzelmann, Rumson; Dr. Hitchins, Brailes; J. Cooksey, Esq., Malvern; Dr. Sellars, Gurnnslake; Dr. Carey, Taunton; Mr. Bryden, Affcuhne; Mr. Leeson, Sandown; Mr. Langdale, Bedford-square, W.C.; W. West, Esq., Great Malvern; Dr. Horner, Chester; J. Sloane, Esq., Forest Row; Dr. Midwood, Manchester; D. Davids, Esq., Cowes; Dr. Smith, Ferbane; Dr. Sterling, Thomastown; Dr. Blackwell, Ballas; Dr. Crely, Aylesburg; Dr. Neilson, Killala; Dr. Crean, Wexford; Dr. Diamond, Rarharkin; Dr. Swan, Abbeyleix; Dr. Mac Cormac, Belfast; Dr. Calahan, Galway; Dr. Darley, Duleek; Dr. Mahon, Westport; Dr. Nolan, Wicklow; Dr. Kincaid, Tuam; Dr. Mulvany, Canada West; Dr. Foster, Birmingham.

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Lectures.

THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S FIRST LECTURE ON FOOD.

VARIETIES OF FOOD—THEIR CHEMICAL COMPOSITION AND NUTRITIVE VALUE.

The economy of food, in its fullest signification, is a matter of national importance; for the political influence of a nation is as much dependant upon the muscular strength of the people as upon their intelligence and commercial industry; and this strength is wholly referable to a right use and proper distribution of food.

We perceive this, not merely in the calamities of actual want, as in the fevers of famine, but also in the less prominent, but equally significant decline of health in times of partial distress, when the vigour and energy of the poorer part of the population are so reduced as to lay them open to disease. In fact, the experience of our public hospitals too often elicits the fact that the wasted power of the patient has been the advent of incurable disease. Nor is this all; for, as Mr. Simon observes—"Long before insufficiency of diet is a matter of hygienic concern; long before the physiologist would think of counting the grains of nitrogen and carbon which intervene between life and starvation, the household will have been utterly destitute of material comfort; clothing and fuel will have been scantier than food; against inclemencies of weather there will have been no adequate protection; dwelling-space will have been stinted to the degree in which over-crowding produces or increases disease; the home will be where shelter can be cheapest bought, where sanitary appliances are least considered, and where cleanliness is almost impossible. And all this distress falls heaviest upon those who are least able to bear it—the mother and her children; for the father, to be able to work, even lightly, must eat, and thus the others are the largest sufferers. Bad, however, as the immediate consequences are, they are nothing in comparison to the remote—the sickly race that comes of want.

In examining, therefore, this question of the economy of food, we must not only look at the nutritive value of different articles of diet, but we must also consider how food can be best distributed and utilized.

To-day we will examine the principal varieties of foods, and ascertain their peculiar qualities and dietetical values. For this purpose it will be necessary to have some standard for comparison, and this is avowedly a difficult matter; for if we compare foods according to the proportions of their principal constituents—viz., albuminous matters, starchy, saccharine, and saline—we shall find that the relative quantities vary to such a degree as to make the comparison almost useless; and if we fix our attention on one of these constituents—the nitrogenous, for example—and make it the exponent of nutritive value, we get into the difficulty of either overloading the equivalent with a large amount of carbonaceous material, or of having it deficient therein. If, for instance, we desire to know the quantities of different foods which would furnish the 1200 grains of nitrogenous matter required by a man in his daily diet, we should find that the following are the proportions:—

TABLE No. 1.

PROPORTIONS OF DIFFERENT FOODS REQUIRED TO YIELD 1200 GRAINS OF NITROGENOUS MATTER:—

	Grains.	Pounds.
Skim-cheese	2,681	0·4
Lean meat	6,217	0·9
White fish	6,630	1·0
Fat meat	9,231	1·3
Fat bacon	13,636	2·0
Bread	14,815	2·1
Rice	19,048	2·7
New-milk	29,268	4·2
Potatoes	57,143	8·2
Parsnips or turnips	100,000	14·3
Beer or porter	1,200,000	171·4

In this manner tables have been constructed of the nutritive values of food, and I show you one of them.

TABLE No. 2.

NUTRITIVE EQUIVALENTS—CALCULATED ACCORDING TO THE AMOUNTS OF NITROGEN IN THE DRY SUBSTANCES; HUMAN MILK BEING 100:—

Vegetable.		Animal.	
Rice	81	Human milk	100
Potatoes	84	Cows' milk	237
Maize	100	Yolk of Egg	305
Rye	106	Oysters	305

Vegetable.		Animal.	
Radish	106	Cheese	331
Wheat	119	Eel	434
Barley	125	Mussel	528
Oats	138	Ox-liver	570
White bread	142	Pigeon	756
Black bread	166	Mutton	773
Peas	239	Salmon	776
Lentils	276	Lamb	833
Haricots	283	White of egg	845
Beans	320	Lobster	859
		Skate	859
		Veal	873
		Beef	880
		Pork	893
		Turbot	898
		Ham	910
		Herring	914

I hardly need say that comparisons of this description are of little practical value, for they furnish no indication of the defective labour required to utilize the products; besides which we are far from being assured, at the present time, that the nitrogenous elements of our foods are the most important.

In framing, therefore, a table of alimentary equivalents regard must be paid to all the constituents, as I have endeavoured to do in Table No. 3, wherein I have shown the percentage composition of different foods, the total properties per cent. of nitrogenous and carbonaceous matter, and the proportions of the latter to one of the former; but here again the actual value of the several carbonaceous compounds is very different; for, although the fattening and respiratory powers of starch, gum, sugar, and pectin, may be nearly the same, yet the power of fat is about 2·5 times as great as that of sugar; and this must be considered, irrespective of other functions of fat, in estimating the value of carbonaceous food.

Table No. 3.—Nutritive Values of Foods.

	Water.	Albumen, &c.	Starch, &c.	Sugar.	Fat.	Salts.	Total Per Cent.		Carbonaceous to one Nitrogenous.
							Nitrogenous.	Carbonaceous.	
Bread	37	8·1	47·4	3·6	1·6	2·3	8·1	52·6	6·5
Wheat Flour	15	10·8	66·3	4·2	2·0	1·7	10·8	72·5	6·7
Barley Meal	15	6·3	69·4	4·9	2·4	2·0	6·3	76·7	12·2
Oatmeal	15	12·6	58·4	5·4	5·6	3·0	12·6	69·4	5·5
Rye Meal	15	8·0	69·5	3·7	2·0	1·8	8·0	75·2	9·4
Indian Meal	14	11·1	64·7	0·4	8·1	1·7	11·1	73·2	6·6
Rice	13	6·3	79·1	0·4	0·7	0·5	6·3	80·2	12·7
Peas	15	23·0	55·4	2·0	2·1	2·5	23·0	59·0	2·5
Arrow-root	18	—	82·0	—	—	—	—	82·0	—
Potatoes	75	2·1	18·8	3·2	0·2	0·7	2·1	22·2	10·6
Carrots	83	1·3	8·4	6·1	0·2	1·0	1·3	14·7	11·3
Parsnips	82	1·1	9·6	5·8	0·5	1·0	1·1	15·9	14·5
Turnips	91	1·2	5·1	2·1	—	0·6	1·2	7·2	6·0
Sugar	—	—	—	95·0	—	—	—	95·0	—
Treacle	23	—	—	77·0	—	—	—	77·0	—
New Milk	86	4·1	—	5·2	3·9	0·8	4·1	9·1	2·2
Cream	66	2·7	—	2·8	26·7	1·8	2·7	29·5	10·9
Skim Milk	88	4·0	—	5·4	1·8	0·8	4·0	7·2	1·8
Buttermilk	88	4·1	—	6·4	0·7	0·8	4·1	7·1	1·7
Chedder Cheese	36	28·4	—	—	31·1	4·5	28·4	31·1	1·1
Skim do.	44	44·8	—	—	6·3	4·9	44·8	6·3	0·1
Lean Beef	72	19·3	—	—	3·6	5·1	19·3	3·6	0·2
Fat do.	51	14·8	—	—	29·8	4·4	14·8	29·8	2·0
Lean Mutton	72	18·3	—	—	4·9	4·8	18·3	4·9	0·3
Fat do.	53	12·4	—	—	31·1	3·5	12·4	31·1	2·5
Veal	63	16·5	—	—	15·8	4·7	16·5	15·8	1·0
Fat Pork	39	9·8	—	—	48·9	2·3	9·8	48·9	5·0
Green Bacon	24	7·1	—	—	66·8	2·2	7·1	66·8	9·4
Dried do.	15	8·8	—	—	73·3	2·9	8·8	73·3	8·3
Ox Liver	74	18·9	—	—	4·1	3·0	18·9	4·1	0·2
Tripe	68	13·2	—	—	16·4	2·4	13·2	16·4	1·3
Poultry	74	21·0	—	—	3·8	1·2	21·0	3·8	0·2
White Fish	78	18·1	—	—	2·9	1·0	18·1	2·9	0·2
Eels	75	9·9	—	—	13·8	1·3	9·9	13·8	1·4
Salmon	77	16·1	—	—	5·5	1·4	16·1	5·5	0·3
Entire Egg	74	14·0	—	—	10·5	1·5	14·0	10·5	0·7
White of do.	78	20·4	—	—	—	1·6	20·4	—	—
Yolk of do.	52	16·0	—	—	30·7	1·3	16·0	30·7	1·9
Butter and Fats	15	—	—	—	83·0	2·0	—	83·0	—
Beer and Porter	91	0·1	—	8·7	—	0·2	0·1	8·7	87·0

Another method of determining the values of food is by estimating the proportions of nitrogen and carbon in them, and comparing them with the proportions required in a standard diet.

Judging from the minimum quantities of food which an ordinary individual is capable of living on, without suffering in health, it would seem that about 4100 grains of carbon, and 190 grains of nitrogen are required in his daily diet. These proportions have been determined from a large number of observations, as by those of Dr. Lyon Playfair, in his inquiries into the dietaries of hospitals, prisons, and workhouses, and by those of Dr. Edward Smith, in his examination of the amounts of food which the Lancashire operatives were capable of living on during the cotton famine, and also by his inquiries into the dietaries of indoor labourers. The proportions which Dr. Smith gives as a famine or barely sustaining diet, are the following:—

	Carbon (grains).	Nitrogen (grains).
Adult Woman ...	3900 ...	180
Adult Man ...	4300 ...	200
Average Adult ...	4100 ...	190

These proportions are contained in 2lbs., and in 2lbs. 3oz. of bread; and they closely accord with another set of facts,

derived from an examination of the amounts of carbon and nitrogen exhaled and secreted from the body during health and idleness.

Taking these numbers, therefore, as the exponents of the nutritive values of food, we are able to construct the following table :—

TABLE No. 4.—NUTRITIVE VALUES OF FOOD.

	Grains per lb.		Value per Pound.	Grains for 1d.		Weekly Cost of Famine Diet for	
	Carbon.	Nitrogen.		Carbon.	Nitrogen.	Carbon.	Nitrogen.
			d.			d.	d.
Split Peas	2730	255	1	2730	255	10·5	5·2
Indian Meal	2800	123	1	2800	123	10·2	10·8
Barley Meal	2730	70	1	2730	70	10·5	19·0
Rye Meal	2660	88	1¼	2128	70	13·5	19·0
Seconds Flour	2660	120	1½	1773	80	16·2	16·6
Oatmeal	2800	140	2	1400	70	20·4	19·0
Bakers Bread	1995	90	1½	1330	60	21·6	22·1
Pearl Barley	2660	91	2	1330	45	21·6	29·5
Rice	2730	70	2	1365	35	20·5	38·0
Potatoes	770	24	0½	1540	48	18·6	27·7
Turnips	238	13	0½	476	26	60·3	51·1
Green Vegetables	420	14	0½	840	24	34·1	55·4
Carrots	385	14	1	385	14	74·8	95·0
Parsnips	421	12	1	421	12	66·4	110·8
Sugar	2800	—	5	560	—	51·2	—
Treacle	2200	—	1	2200	—	13·0	—
Buttermilk	335	35	0½	670	70	42·8	19·0
Whey	154	13	0¼	626	52	45·8	25·6
Skimmed Milk	350	34	1	350	34	82·2	39·1
New Milk	378	35	2	189	18	154·0	73·9
Skim Cheese	2348	364	3	783	121	36·6	11·0
Cheddar do.	2520	315	8	315	39	91·1	34·1
Bullocks' Liver	1226	210	3	408	70	70·3	19·0
Mutton	2902	140	5	580	28	49·5	47·5
Beef	2301	175	8	288	22	99·6	60·5
Fresh Pork	2950	108	7	421	15	68·1	88·7
Dry Bacon	4270	98	9	474	11	60·5	120·9
Green do.	3990	79	8	492	10	58·3	133·0
White Fish	900	130	2	450	65	63·8	20·4
Red Herrings	1435	217	4	359	54	80·0	24·6
Dripping	5320	—	6	887	—	32·3	—
Suet	4710	—	7	673	—	42·6	—
Lard	4819	—	9	535	—	53·6	—
Salt Butter	4585	—	12	382	—	75·1	—
Fresh do.	4712	—	16	294	—	97·6	—
Cocoa	3934	140	4	983	35	29·2	38·0
Beer and Porter	315	1	1	315	1	91·1	1330·0

And now we may proceed to examine in detail the general properties, and the nutritive qualities of different foods.

Primarily all our foods are derived from the vegetable kingdom, for no animal has the physiological power of associating mineral elements, and forming them into food. What we may yet do by means of chemical agencies in the laboratory is another question ; but within our own bodies there is no faculty for such conversion. As I shall hereafter explain to you, our functions are of an opposite kind. We are destructive creatures, not constructive. It is our province to pull down what the vegetable has built up ; to let loose the affinities which the plant has brought into bondage, and to restore to inanimate nature the matter and cosmical force which the growing plant had taken from her.

Foremost, therefore, of our foods are those which come at once from the vegetable kingdom ; and of these the *cerials* are the most important, as wheat, barley, oats, rye, maize, or Indian corn, rice, millet or Durra, and Guinea corn.

Wheat.—Different species of this grain are cultivated, but the most common in this country is *Triticum vulgare*, of which there is a summer and winter variety.

The grain varies a good deal in composition according to season, climate, and soil ; but, as a rule, the wheat of Southern climates, and warm seasons, is richer in gluten, and of harder texture than that of colder times. They are then called stronger grains, although the latter, from their being softer and kinder, give a larger proportion of flour. Some of the hardest varieties of wheat, as *rivets*, are used to strengthen the flour of new grain, which is always unmanageable, and to improve that of bad seasons and of damaged quality.

The structure of the grain is like that of all the cereals : there is an outer siliceous and woody covering which is altogether valuless as food ; then there is a layer of rich nitrogenous matter, containing a digestive body called *cerealine*, and within that is the flour, which forms the great bulk of the seed.

When ground whole, it forms *brown meal*, which is rarely used in England at the present time, although it was the common food of our forefathers, and even now is much employed in Westphalia, to make the dark-coloured bread called *pumper-nickel*. It contains from 5 to 12 per cent. of indigestible matter, in the form of bran, the removal of which, according to Liebig, is only a refinement of luxury.

The practice at the present time is to bolt or sift the ground meal through sieves, or silks, of different degrees of fineness, and thus to remove the coarser bran. The products have different names in different places, and have also different values ; but generally a hundred pounds of wheat will yield from 78 to 80 parts of good serviceable flour. The other products are about 2 parts of *specks*, or *tails*, or *tippings* ; from 2 to 3 parts of *sharps* ; about 3 of *fine pollard* ; from 3·5 to 6 of *coarse pollard* ; and from 4 to 10 of *bran*. The relative wholesale values of these are about as follows :—

	Lbs. per Bushel.		Price per Bushel. s.	d.		Price per 20lbs. s.	d.
Fine flour	56	—	10	0	—	3	7
Second do.	56	—	7	9	—	2	9
Sharps	26	—	2	0	—	1	6
Fine Pollards	18	—	1	0	—	1	1
Coarse do.	14	—	0	10	—	1	2
Bran	12	—	0	9	—	1	3

Seconds flour is practically the best for domestic use; and of this there should be at least 80 per cent. from the grain. Attempts have often been made to increase the produce; for as the bran contains a good deal of nitrogenous matter, and is, moreover, rich in fat and saline substances, it has been thought wasteful to remove it: but the experimental researches of Poggiale, the learned professor at Val-de-Grace, have shown that at least 50 per cent. of bran is perfectly indigestible, and may be passed successively through the bodies of four or five animals without undergoing change. It, moreover, acts as an irritant; and, by hurrying the food through the alimentary canal, is very likely to cause waste. Those who labour hard, as railway navigators, invariably choose the whitest bread for food, believing that it is not only more digestible, but is stronger, and will enable them to do more work. Without doubt, however, there is room for improvement in the treatment of flour, and in the complete utilization of its several constituents. M. Mège Mouries has invented a process whereby the outer skin only of the wheat may be removed, and from 86 to 88 per cent. of flour realized. The process was examined in 1857, and reported very favourably of by Dumas, Pelouze, Payen, Peligot, and Chevruel, but I am not aware that it has come into use.

M. Mège Mouries also directed attention to the fact that the bran contains a portion of very soluble nitrogenous matter, *cerealine*, which is of the nature of diastase, and has the property of dissolving starch. This, no doubt, might be utilized by treating bran with warm water, and then using the water in the manufacture of bread.

The nutritive value of wheat is shown in Tables No. 3 and No. 4; and, although the average amount of gluten is there set down at about 11 per cent., it ranges from 8 to 15 per cent.—the largest quantity being found in the wheaten flour of India, Egypt, South America, and the South of Europe.

It appears, too, that the quantity of gluten, as represented by nitrogen, increases with the coarseness of the flour, and so, also, does the amount of mineral matter.

TABLE No. 5.

PERCENTAGE AMOUNTS OF NITROGEN AND MINERAL MATTER IN THE DIFFERENT PRODUCTS OF THE MILL:—

	Nitrogen.		Mineral Matter.
Fine Flour	1·70	—	0·71
Tails	1·86	—	0·99
Fine Sharps	2·21	—	1·89
Coarse Sharps	2·58	—	3·80
Fine Pollard	2·44	—	5·50
Coarse Pollard	2·42	—	6·50
Bran	2·39	—	7·00
Average in whole grain	1·82	—	1·62

The starch and sugar amount to about 70·5 per cent. and the fat to 1·7; so that the carbonaceous is to the nitrogenous as 6·7 to 1, which is a good proportion. Other facts relating to its nutritive value are shown in table No. 4.

The tests for a good flour are its sweetness and freedom from acidity or musty flavour; and its nutritive value, as far as gluten is concerned, is estimated by the process of Beccaria, who discovered gluten in wheat more than a century ago. A given weight of flour (say 500 grains) is made into a stiff dough, and is carefully washed by tender manipulation under a small stream of water. The gluten remains, and when baked it expands into a clean-looking ball, which should weigh, when thoroughly dried, about 54 grains.

Of all the preparations of flour, *bread* is the most important. I shall hereafter describe the process of making it, but I may here remark that it should not contain more than from 36 to 38 per cent. of water, and the other constituents, excepting salt, should be the same as of good flour.

In practice, 100 lbs. of flour will make from 133 to 137 lbs. of bread, a good average being 134; so that a sack of flour of 286 lbs. should yield 95 four-pound loaves. The art of the baker, however, is to increase this quantity, and he does it by hardening the gluten through the agency of a little alum, or by means of a gummy mess of boiled rice, three or four pounds of which will, when boiled for two or three hours in as many gallons of water, make a sack of flour yield 100 four-pound loaves. But the bread is dropsical, and gets soft and sodden at the base where it stands. A good loaf should have the following character:—

Kindness of structure—that is, not chaffy, or flaky, or crummy, or sodden; and

Sweetness to the palate and to the smell.

Wheaten bread is best eaten on the day after it is baked, for new bread is difficult of mastication, and still more difficult of digestion, because of its gummy nature. When it becomes stale it does not really get much dryer, but it undergoes a molecular change, which may be restored by heating the bread in a closed vessel to a temperature of 212°.

Wheaten bread is preferred to all other varieties of bread because of its sweetness, and because it may be eaten alone. The nutritive constituents of it are in the same proportion as in wheat—namely, as 1 to 6·5, and a little more than two pounds of bread will supply the requirements of the system; although, as I shall hereafter explain, it cannot be used alone without loss of health and strength.

Barley-meal is the chief food of a large number of people in the North of Europe and in the South of England, where the labourer is partly paid his wages in meal or grain. It is also used in Wales and Scotland, especially in winter-time, when wheaten bread is dear; and to some extent in Ireland. It is employed by about ninety per cent. of the outdoor labouring population of England. At the time of Charles I. (in 1626), according to M'Culloch, it was the usual food of the ordinary part of people, and as late as the middle of the last century hardly any wheat was used in the northern counties of England. In Cumberland the principal families used only a small quantity about Christmas-time; and the crust of the everlasting goose-pie, which adorned the table of every country family, was invariably made of barley-meal.

The grain is almost always ground whole, and the farina has much resemblance to wheaten flour; but the amount of gluten is very different, in fact, the nitrogenous matter, which amounts to about six per cent., is chiefly in the form of albumen, hence, the bread is heavy and compact, for albumen will not vesiculate or sponge like gluten. The common way of making it into bread, is by mixing it with an equal proportion of wheaten flour, and sometimes it is mixed with oatmeal and rye-meal, and baked into cakes. But the best way of using it is in the form of thick gruel or stirabout, which is made by stirring the meal into boiling water.

Pearl Barley and *Scotch Barley* are the grain deprived of its husk, and rounded by attrition. The former is more carefully prepared than the latter, but both are used to give consistence to broth.

The nutritive value of barley meal is somewhat inferior to that of wheaten flour, but as the meal is cheaper than flour, it is more economical to use it, in fact, it is almost the cheapest article of diet, as may be seen by reference to Table No. 4.

Oatmeal and rye-bread were once the chief diet of the servants of the wealthy, and even now the former is used by 90 per cent. of the agricultural labourers of England, and by a still larger proportion of the Scotch. The grain is very rich in gluten and fat, and it contains a good quantity of sugar and starch, the microscopic form of which is remarkable. The Scotch meal is always preferable to the

English, on account of its higher nutritive power. It is prepared by grinding the kiln-dried grains, previously deprived of their skins. The Scotch grind it rather coarsely as compared with the practice in England.

Oatmeal is not nearly so white as wheaten flour, and its taste is peculiar, being at first sweet and then rough and bitter. Like barley-meal it cannot be vesiculated into bread but it makes good cakes, and these may be either leavened, as is the custom in Yorkshire, or unleavened as in Scotland.

The common method of cooking it, however, is by stirring it into boiling water until it has the consistence of hasty-pudding, and in this manner *porridge* is made ; but if it be afterwards boiled for a short time it makes Scotch *brose*. In Ireland it is mixed with Indian meal, and then stirred into boiling water, thus making the mixture called *stirabout*.

The decorticated grain constitutes *grits* or *groats*, and when these are crushed or bruised they go by the name of *Emden groats*. The sole use of them is for making gruel, a drink that seems to have been a favourite with our forefathers ; for in the *London Gazette*, for Friday, August 13, 1695, there is an advertisement to the effect that water-gruel was always ready at the Marine Coffee-house, in Birchin-lane, Cornhill, every morning from 6 to 11 o'clock, and, it added, that as much as from four to five gallons of it were consumed there daily.

The husks of the grains are sold in Scotland under the name of *seeds*, and these, when steeped in water for a few days until they become a little sour like stale brewer's grains, and then squeezed out, produce a liquid, which, when boiled down to the consistence of gruel, makes the food called *flummery*, or *sowans* in Scotland, and *sucan* in South Wales. If it be boiled still more, until it becomes as thick as jelly, it forms *budrum*, or *brwchan*, as it is named in Wales. Oatmeal is, no doubt, rather hard of digestion, and causes irritation of the bowels. There is a notion also that it produces heat and irritation of the skin ; and formerly, when sufficient care was not taken to remove the husk from the grain before it was ground, it was not an uncommon thing to find calculi or concretions of phosphate of lime, mixed with the silky bristles of the grain, in the alimentary canal. Somewhat similar concretions are found at the present time in the bowels of horses that feed too freely on bran or grains. The nutritive value of oatmeal is shown in Tables No. 3 and No. 4, and it will be noticed that although it is weight for weight more nutritive than wheaten flour, yet, considering its price, it is not so economical.

Rye meal is the chief food of northern nations, and was once a common article of diet with ourselves. It forms the dark coloured, and sour tasting bread of the North of Europe. In this country it is rarely eaten alone, but is mixed with about twice its bulk of wheaten-flour, forming what in many places is called *maslin*, and is then made into bread. The nutritive power of rye-meal is a little less than that of flour, and the proportion of the nitrogenous to the carbonaceous constituents is as 1 to 9·4.

(To be continued.)

LECTURES ON VENEREAL DISEASES

DELIVERED IN

DR. STEEVENS' HOSPITAL.

LECTURE I.

By ROBERT McDONNELL, M.D., F.R.S.,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

GENTLEMEN,—The range of your studies offers few subjects at once so interesting and so perplexing as that of venereal diseases. The commonness of the complaints, the formidable aspects they not unfrequently assume, invite your attention ; while you must be struck by the difference of opinion which exists, and has long existed, even among the greatest writers who have treated of this subject. The teaching of the leading syphilographers of France, Germany, and England, are far from being in harmony with each other. This work, which I hold in my hand, the recently published report of a committee appointed to inquire into the pathology and treatment of the venereal diseases, strikingly attests what difference of opinion still exists among British surgeons upon this subject. You yourselves are well aware how varied is the doctrine inculcated in different hospitals, nay, even in the same wards, you often find that the surgeon you follow to-day holds views different from him you may follow to-morrow.

In this hospital you have excellent opportunities afforded you for studying these complaints ; for in the year 1820, when the Lock Hospital of this city was closed against the reception of male cases, at the request of the government, provision was made in this hospital for the treatment of male venereal patients, and this practice is still continued.

It is only of late years that it can be said that venereal complaints have been studied with anything like scientific accuracy. It was a saying of our forefathers *si in dubio suspice venerem*, and what Hunter wrote nearly 100 years ago is indeed applicable to to-day. "There is even at this day hardly any disease that the practitioner is puzzled about, but the venereal comes immediately into his mind;" and this tendency to regard every obscure symptom as in some way connected with venereal disease has been one of the greatest obstacles to its elucidation.

But, as regards syphilis, as in the working out of many other scientific problems, the chief difficulties which have obscured the field of investigation, have been the pre-conceived notions which possessed the mind of the investigator. For, in the first place, maladies which we now-a-days regard as several distinct diseases were formerly confounded with each other, because they were all supposed to have one and the same origin—to spring from one and the same poison. In the second place, it was an idea handed down from master to pupil for centuries, that unless stayed in its progress by the most active treatment, syphilis was a complaint which would go on slowly but surely from bad to worse. Beginning like a snowball rolling down the mountain side, it would end in the avalanche sweeping all before it. Commencing, in fact, in a little sore not bigger than a pea, that it would by degrees attack the glands, the throat, the skin, later the bones and vital organs, and, finally, "having retreated to its last citadel, the head, and, like a skilful general, broken down the bridge behind it," it would bring down the few hairs which still remained with sorrow to the grave. The natural result of this belief regarding the progress of syphilis was that it was attacked in the most furious manner by the most violent remedies, and the monster-malady was so defaced and disfigured as to be made a thousand fold more hideous than nature had made it. Under these circumstances it was difficult to recognise the true features of the complaint. It were as though an astronomer should attempt to map out the spots upon the sun when the sky was overcast by clouds, or an artist to take a likeness from a distorted image seen reflected in a silver dish cover. Thanks, however, to the researches of later times, many of the clouds have been cleared away, although much remains for you yet to do. One group of investigators has placed in their true light the several distinct diseases which until lately were confounded together ; while another, by studying the progress of syphilis when allowed to run on in its own course, not interfered with by the action of so-called specifics, has given us a correct image of the monster in his natural state. It is true Caliban is an unsightly beast at the best, yet he appears now-a-days to be a less formidable enemy to contend with than when it was more the fashion to goad him into fury with weapons, which, at the best, only for a time, subdued him, and often only enraged without overcoming him.

In collecting the evidence upon which our judgment

is to be formed upon this subject, we must be guided—first, by the opinions of persons who have given close attention and study to the subject; secondly, by facts, observations, and experience recorded by truthful observers; and thirdly, by the facts and cases which have occurred under our own eyes. We shall first examine the opinions of some of the most distinguished writers of the present day, and in doing so, I shall draw my evidence, for the most part, from the report already alluded to, from the recently published work of Lancereaux, and from the works of Lee, Virchow, and Diday. The illustrious Hunter, as you are, no doubt, aware, was led by observation and experiment to the erroneous conclusion that gonorrhœa and chancre are the effects of the same poison. Later, Mr. Abernethy fell into the equally great error of believing that diseases which got well without the use of mercury were not syphilitic.

As some confusion has arisen among writers on this subject from the nomenclature of these diseases, I should propose that hereafter clinical teachers in this country should adopt the names used in the report of the Venereal Committee. According to this report, venereal disease presents itself in two forms, gonorrhœa, and sores or ulcers. Of venereal sores or ulcers there are two species, one of which effects the constitution, while the other does not. They are termed syphilitic and simple.

It is a pity that the term "small-pox" is pre-occupied. If we could call the syphilitic sore the "great," and the simple venereal sore the "small" pox, we should at least have good Saxon words to indicate the formidable proportions of the one disease as compared with the other. Indeed, they might be very well designated on this principle—"the big and the little pox," were it not that, in truth, we have too many names already.

We find, then, in actual existence three venereal diseases: 1st, gonorrhœa; 2nd, the simple venereal sore; and 3rd, the syphilitic venereal sore.

Of gonorrhœa I speak merely to say, that the opinion of Hunter is now, I believe, universally abandoned. Even before his time, in 1767, Balfour maintained that gonorrhœa and syphilis were distinct maladies, and this view was afterwards advocated by Ellis, Duncan, Bell, and Bosquillon.

It remained, however, for Hernandez, Cockburn, M'Gregor, Hennen, and Guthrie, to establish this proposition which has been verified, and, in short, clearly demonstrated as a fact by the experiments of Ricord and Rollet. The co-existence of urethral chancre with the gonorrhœa, or the fact of an urethral chancre being mistaken for gonorrhœa, was, no doubt, one of the chief causes which rendered it difficult to establish, with absolute certainty, a fact which appears to us so very simple.

The simple venereal sore which, by various writers, has been described as false syphilis, local syphilis, soft chancre, suppurating chancre, non-infecting chancre, chancroid, chancrelle, is now regarded as a local disease, incapable of infecting the constitution. Its influence, in fact, never extends beyond the inguinal glands. It is, however, eminently contagious, producing sores like itself. It is the most common form of venereal sore. Very often several such sores occur upon the same subject. The pus which gives rise to it retains its influence for a long time. Ricord has inoculated successfully with pus preserved for 17 days. It begins in a pustule; its edges are perpendicular, as if punched out. For a time it tends to spread superficially. It secretes pus freely, and, generally speaking, is as soft as the parts around it—so much so—that if the eyes were shut, one could rarely discover by the touch the situation of the sore. But descriptions of it are unnecessary. You must learn its appearance from seeing and examining it, and of this you have opportunities every day.

The syphilitic sore—which is also known as true syphilis, the Hunterian chancre, indurated chancre, the non-suppurating chancre, the infecting chancre—is the disease which is the forerunner of constitutional syphilis. From the names which have been given to it, you may infer some of its most marked characteristics—that it was recognized and described by Hunter; that it has often hardness of the base; that it does not suppurate easily; that it infects the system; that it alone is really deserving of the name of syphilis. The hardness around its base is its most marked characteristic. Any one familiar with this symptom could diagnose it blindfold. Although its most marked symptom, yet it is not always present.

Fortunately for mankind, this (the big pox) is less common than the simple venereal sore.

According to the report of the Venereal Committee, the proportion is about four simple to one syphilitic.

Puche found in 10,000 chancres—
8,045 simple chancres.
1,955 syphilitic.

Fournier has seen in 341 chancres—
215 simple chancres.
126 syphilitic.

It appears to be agreed, therefore, on all hands that the simple ulcer is much the commoner disease; for these statistics harmonize very well with those of our own naval and military authorities.

The syphilitic sore is said to occur under three forms. Firstly, that of a dry papule; secondly, the chancrous erosion; and thirdly, the hard chancre. In the first two forms the characteristic hardness is wanting, and this is no doubt one of the causes why the infecting form of the disease was so long confounded with the local one.

You may ask, are we able in practice to distinguish with certainty the one of these diseases from the other? Can we, when we see a patient for the first time suffering from a venereal sore, say whether that sore will or will not be the forerunner of constitutional syphilis? In answering this question, I say that it is not possible to pronounce with certainty whether it will or will not be followed by constitutional symptoms; but, on the other hand, you may often make the diagnosis with the highest degree of probability. If, for instance, you find the characteristic hardness which forms, if not an invariable, at least a most important symptom of the syphilitic sore, you may say to your patient that the chances are about a hundred to one that he will some time hence suffer from secondary syphilis, and this opinion you may form with almost absolute certainty if you find that the hard sore is accompanied by a hard gland which rolls like a marble beneath the skin in the groin. If, on the other hand, you find several sores free from hardness, suppurating freely, you may give your patient good hopes that no constitutional disease is in store for him, and you may be more hopeful still if you find in the groin a bubo, which, instead of being hard and indolent, runs rapidly forward to suppuration.

Let me advise you, however, in such a case, not to give your patient any positive assurance that secondary disease will not follow. Tell him that he has a disease with the characters of the simple venereal sore; that you have every reason *to hope* that his constitution may escape scot free. But no positive assurance—*crede experto*. Do not be rash, or you may rue it. Be hopeful—nothing more. We cannot make the diagnosis with certainty.

If, on the other hand, circumstances enable your patient to fix positively the date of his impure contact; and if a fortnight or three weeks have elapsed between that time and the day when he perceived the sore, even although there is no hardness, you will regard the affection as probably syphilitic, and almost certainly so if you have a hard gland in the groin.

Of the three forms in which constitutional syphilis has been observed to commence—1st. The dry papule appears to be the rarest, as it is likewise the most likely to escape observation. 2nd. The chancrous or chancriform erosion (which was, no doubt, the patchy excoriation of Carmichael, and the superficial primary syphilis of Wallace, the parchment chancre of Ricord, the venerola vulgaris of Evans, the condylomatous affection of Rinecker, the superficial erosion of Langlebert,) is, accord-

ing to Bassereau and Diday, the most frequent form in which primary infecting syphilis manifests itself. 3rd. The indurated chancre, which, according to Lee, is the commonest form of infecting syphilis, is the least likely to escape observation, and certainly that in which the ultimate consequences of the disease may be foretold with the greatest certainty.

Many persons seem to think that the questions—

A.—Has the syphilitic sore a period of incubation?

B.—Is it true that the syphilitic sore cannot be inoculated on the subject that already has one?

C.—Can a syphilitic sore be "aborted" (and the progress of the disease cut short) by being cut out, or burned out with escharotics?

are questions only interesting in a theoretic point of view. They are, however, eminently practical. On the answers to these questions our opinion must be formed, our reasoning must be based.

For, if it be true that the syphilitic sore has a period of incubation—(*i.e.*, a period of some weeks elapsing between the day of infection and that on which the sore appears) if it, from that time, is not reinoculable on another part of the patient, if it is not abortible, then it follows, as clearly as possible, that in such case the *so-called primary lesion* is not really the primary lesion. The initial lesion must be that which takes place *on the day of infection*, and at the time when the sore becomes apparent the constitution is already engaged; from that time the enemy is no longer threatening our shores, he has crept in unknown to us and made good his footing; he already holds the avenues leading through the frame, and the chancre is, as it were, the standard already floating on the citadel.

Let us, then, examine carefully into these questions. The simple sore appears early, within three or four days after intercourse. The syphilitic sore comes on at a later period from the probable time of infection; has it what is called a period of incubation?

A.—QUESTION OF INCUBATION.

The question whether there be any fixed and definite period between the exposure to contagion, and the appearance of the sore, is one of great scientific interest, and I believe one of great practical importance also. Although we have some important evidence upon the subject, the question may be said, however, to be one which is still *sub judice*. It appears to be of much practical importance, because if it be established that a period of some weeks must elapse between the exposure to infection and the appearance of the disease, it becomes probable that when the disease first becomes apparent the system is already infected. Analogy would lead us to suppose that such a period of incubation does exist, as we know it does in small-pox, measles, and such complaints, and it must follow as a corollary, assuming a term of incubation really to exist, that when the disease makes its appearance in the tangible form of chancre it is already past the hope of remedy by an abortive treatment. Thanks to inoculations practised upon hitherto healthy individuals, the incubation of syphilis which was for a long time denied by a celebrated school, has had some light thrown upon it in these latter days. However unjustifiable such inoculations may be, we may, at least, profit by the facts which have been thus developed. The weight of evidence brought before the Venereal Committee preponderates in favour of the view, that there is no definite period of incubation either for the simple or the syphilitic sore. Continental writers, however, give some important facts upon this subject, and the experiments alluded to go far to prove that a fixed period between infection and the appearance of the disease does exist. The same view is also countenanced by the information derived from the unfortunate occurrence of syphilis in the children vaccinated with impure virus at Rivalta. From the experimental inoculations made by Wallace, of Dublin; Vidal; Waller, of Prague; Rinecker, of Wurtzburg; Rollet, Gibert, and Pellizzari, it would appear that a period of twenty-eight days on an average elapses between the time of inoculation and the appearance of the chancre. From these experiments it results that the slight wound made at the time of inoculation soon cicatrises, as though it were nothing more than a simple puncture. The cure does not, however, last long; for soon there appears a lesion, which is the first appearance of the syphilitic disturbance, eighteen days being the shortest, and thirty-five days the longest time which has elapsed in any one of these experiments between the inoculation, and the manifestation of the disease. Diday, from his observation in the cases of twenty-nine patients, in which he obtained his information as accurately as one ever can from such cases, arrives at the conclusion that fourteen days is the mean period elapsing between infection and the appearance of the disease.

Dr. Viennois has been led by his investigations, to conclude that the vaccine disease and syphilis may be inoculated at the sametime. The cow-pox then appears first, having a shorter period of incubation, and, after a time, the chancre makes its appearance upon the inoculated part, and is followed by secondary symptoms. In the unfortunate occurrence already alluded to, and carefully investigated by Dr. Pacchiotti, Professor of Surgery at Turin, and entitled by him "Syphilis transmitted by means of vaccination at Rivalta," the period of incubation for the syphilitic poison appears to have averaged about 20 days. The medical men appointed to report upon this remarkable outbreak say, that the syphilitic symptoms showed themselves at periods varying from ten days to two months. In the remarkable experiment made in May, 1867, by John Hunter, in which he is generally believed to have made the inoculation upon himself, he says four months after the inoculation, the chancre on the prepuce broke out again. You see, therefore, that although there is evidence that with reference to the syphilitic sore, a period of incubation actually occurs, yet the question is one of those which requires further precise observations before the time at least can be distinctly fixed. I have myself met with one case in which circumstances fix the period with some precision. A man came from America in a sailing ship. He was six weeks at sea, and was in good health during this time. He was not exposed to contagion during the voyage. Upon arriving in Dublin he devoted one night to dissipation. Upon the following day he was taken by the police and thrown into the Mountjoy prison, under the Habeas Corpus Suspension Act. Four days afterwards I inspected him, and he drew my attention to an excoriation on the frenum. One week afterwards I again inspected him, and found this healed, simply with water dressing, and it was not until 20 days later, that is 31 days after the impure connection, that he came before me with a chancre behind the corona, already slightly indurated. Possibly this sore may have been in existence for some days, but he assured me, positively, that it could not have existed for more than four days, as he had washed himself thoroughly on the Sunday before, without seeing it. Two months later he had secondary syphilis, in the form of aroseolar eruption, although the sore had been freely burned with caustic on the first day that my attention was directed to it.

(To be continued.)

Original Communications.

CLINICAL REMARKS ON DISEASES OF THE ANKLE AND FOOT.

By HOLMES COOTE,

LECTURER ON SURGERY, AND SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

I HAVE under treatment two cases of chronic disease of the ankle-joint. Both the patients are somewhat delicate young women, who, in spite of an early warning of pain, have been obliged to exert themselves to obtain a living. One is a laundress, the other a domestic servant. The symptoms have in both been much the same—namely, unendurable pain and swelling of the joint after standing or

walking. In the latter case the disease was most advanced, inasmuch as abscesses had formed from time to time, and the probe passes down to diseased bone.

So long had this unsatisfactory condition of the joints lasted, and so unable were the patients to follow any remunerative employment, that they came into the hospital, willing to submit to amputation of the affected limbs. But, although still to some extent uncertain as to the ultimate result, I saw nothing incurable in the parts, if kept for some months in a state of complete rest; and I therefore, after bringing the joints into a quiet state, had them encased in an immovable bandage, and supplied the patients with lightly-constructed wooden legs, which enable them to walk about and follow some avocation on the bended knee.

The courage of the second patient however soon failed, and she insisted on being relieved of that which was a constant source of suffering. I accordingly amputated the leg at the lower third, January 19. On examination of the diseased parts we found that there had been long-standing disease of the astragalus, the articulating surfaces of which were entirely denuded of cartilage. Anchylosis had taken place between its upper surface and the lower end of the tibia, while its under surface was connected to the calcaneo-scaphoid articulation by fibrous tissue, which became stretched and painful when the patient rested on the foot. Other bones of the tarsus were also diseased.

Under favourable circumstances, and with care, the diseased parts may again become firm and healthy, and the patients regain their use. I will know how long it takes for a diseased ankle again to become sound. Indeed the late Mr. Stanley assured me that he had never met with a case of bony anchylosis after such an event. He and I, however, came across one specimen taken some time afterwards from the dissecting-room, and I hear that there are a few specimens in the museums of other hospitals.

These two cases induce me to offer a few remarks on diseases of the ankle-joint, which seem often but lightly passed over, and of this the reason appears to be that they often owe their origin, and are closely associated in many forms, with changes in the relations of the bones, such as are familiar enough to those who have been engaged in the practice of orthopædic surgery.

In the first place, what is meant by the ankle-joint; is the term limited to the articulation of the upper surface of the astragalus with the lower extremities of the tibia and fibula? This may be correct in strictly anatomical language, but in studying the pathology of the ankle, we must regard not only the upper, but also the under surface of the astragalus, that key-stone to the arch of the foot, as it is called, we must bear in mind its relations with the upper surface of the os calcis, and especially with the calcaneo-scaphoid ligament which receives the rounded head of the astragalus as in a socket. So long as the arch of the foot is intact, a person can move about all day without fatigue; when the arch of the foot is sinking, the pain is progressive, and becomes almost insupportable. After it has completely sunk, the head of the astragalus comes to the ground; the bony surfaces have not just their proper apposition; the foot feels to the patient "too long;" he does not put the sole flat upon the ground, but shuffles along, resting on the inner border of the foot; the peronei muscles become tight and rigid, and, after a time, the tendo-achillis will not let the foot be raised beyond the right angle.

If in this state of parts, the patient, as is commonly the case, wears heavy boots, somewhat short and narrow at the toes, the whole foot passes into a state of deformity, in which all its symmetry and delicacy of movement is lost. Frequent attacks of inflammation supervene; the bones themselves become involved, and I have had on more than one occasion been obliged to amputate the foot to remove a useless and painful appendage.

It is scarcely necessary to remark that the astragalus is not made to rest on the ground, and to sustain the weight of the body. It may, under such circumstances, become inflamed, when it casts off its cartilaginous coverings. The specimen here presented, (Ser. 11, No. 4), illustrates this point. It is an "ankle-joint," but nearly the whole of the articular cartilages have been removed, the small portions which remain are thinned, and their connection with the bones is loosened. The bones are superficially ulcerated, and very vascular, even the posterior surface of the astragalus, by which it articulates with the os calcis, is similarly diseased.

In the astragalus, as in the upper and lower extremities of the tibia, and the lower extremity of the femur, parts which directly receive the weight of the body, and which, more than any others, are exposed to sudden and often violent shocks, we meet with the same proneness to disease. In the case of the ankle, the morbid conditions are various, but the sinking of the arch, called talipes valgus, is one of the most common, and is a real calamity, especially to persons of active habits. In the early stages of this disease, almost immediate relief may be afforded by the use of well-made broad-soled boots, with a small pad just under the arch. The plan is to keep the patient constantly in bed, day and night, for a week or more, until all pain has subsided, and the tendons have become relaxed; should any remain persistently tense, they may be divided subcutaneously with advantage. The arch of the foot should then be slowly pressed up with proper splints and after a time the use of the padded boots be allowed. Sometimes outside irons are wanted, with a strap over the ankle.

By such simple means the arch of the foot may be maintained, and one source of disease, and that a common one, permanently removed. A tall girl, of about 12 or 13, was lately sent under my care from some part of Kent. She was so flat-footed as to be unable to walk any distance whatever. The treatment above recommended was carried out, and she went back home in comparative comfort. From some cause or misapprehension, she threw aside her boots too soon, when the deformity quickly returned, and she had again to go through the same course of treatment, and with a successful result.

I do not assert that with the sinking of the arch of the foot, disease of the bones is by any means an invariable result. It is only one cause out of many others, and should be borne in mind, the more so as it is preventible, and relief is afforded on very easy terms. The ankle-joint is liable to affections of strumous, of gouty, or of rheumatic character, but these are generally easily recognised. At the same time, I must observe that incipient flat foot has often, in my experience, been mistaken for rheumatic inflammation, and the usual remedies been applied without effect.

In close association with talipes valgus is another affection of joints, namely, disease of the metatarso-phalangeal articulation of the great toe. A respectable young man, clerk, and much on his feet, has just left the hospital, where he has been staying some months, under my care, in consequence of a painful swelling over the ball of the great toe of two years' duration. The parts are thickened and intensely tender. If he attempts to walk, the pain becomes unbearable, and when I first saw him, he had his foot in a slipper, bound up in soft cloths. Now what was the history of this case. He had flat feet; the elongated foot had been pushed into thick boots, narrowed at the toes; the great toe had been pressed inwards, the ligaments stretched, and the tendons thrown from their proper line of action. Can it be wondered that disease of the joint supervened; and, in these cases, the perplexing question arises, are we justified in amputating the offending member. True, surgery says no; but the patient is often worn out by suffering and sick of want of employment. However, in this case, I set the toe straight, and after relieving him of pain, dismissed him with directions to return, should he feel any further inconvenience.

In investigating the causes of flat feet, the surgeon would, of course, examine the knees, to see that they did not "turn in," a point easily ascertained.

HOW FAR ARE RESIDENCES IN ELEVATED SITUATIONS TO BE RECOMMENDED TO PERSONS THREATENED WITH OR SUFFERING FROM PHTHISIS PULMONALIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,
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MANY physicians seem to think that the keen air of hills or mountains is more injurious to phthisical patients, by exciting bronchitis, than beneficial in warding off future deposits of tubercle ; and, doubtless, there is much truth in this view, that persons in the last stage of consumption will often linger on in less pain by seeking a sheltered spot. But, on the whole, I am inclined to believe that the bracing air of mountains and hills gives a better chance, so long as the patients are well housed and fed, of recovery, than situations of lower levels.

About a year ago, Dr. Hermann Weber called attention to the advantages which phthisical patients often obtained from residence in situations far above the level of the sea. And it has been remarked that in Germany, whilst the disease is very common in the manufacturing towns, it is rarely met with among the mountains above the height of 3500 feet over the sea. Lombard in his work declares that phthisis entirely disappears at the height of 5000 feet over the sea. The disease appears to be rare among the Neilgherry Hills, according to Villemin, and in the Himalaya Mountains, 5000 feet over the sea, it is also very rare.

Phthisis is said to be almost unknown in the high plateaux of the Rocky Mountains, Cordillieras, and Andes, in North and South America. On the high plains of Mexico, the rarity of tuberculosis contrasts with its frequency on the sea coasts. "There are in the Cordillieras, according to Guilbert, towns of ten, twenty, and forty thousand persons, where phthisis is never met with ; and Nicol, in ten years' practice (says Villemin in his recent work on tuberculosis, p. 366), had not met with one case of phthisis in La Paz, a town of 40,000 inhabitants, seated at 3700 metres above the sea, in Bolivia." When the inhabitants of these towns, however, descend to the sea-coast, they then become phthisical.

Pleurises and pneumonias are, however, common at these high altitudes.

There is so much evidence contained in the above statements taken from the recent work of Villemin, in favour of spots far above the level of the sea, as residences for those who are anxious to avoid any hereditary predisposition to phthisis breaking out, that perhaps it may not be illogical to infer, that even when this sad disease has attacked the lungs, a residence in situations as far above the sea-level as possible might prove of service in checking fresh deposits of tubercles, and thus arresting the disease. If this be true, it would then appear to follow, that in any future hospitals or sanitaria for consumptive patients, we ought rather to look about for high situations, than do as at present is being done—*i.e.*, seek to construct them on the level of the sea, as is proposed to be done in the Isle of Wight at present. I was led to think of this subject first by the papers of Dr. Hermann Weber, and since then, at the North London Hospital for consumption situated at Hampstead, not very far from the top of the hill, I have had an opportunity of observing, that several of those patients who suffered from cavity of the lung, have recovered their appetite after a few days stay in that hospital ; and been much benefitted, even in December, by walking on the high terrace walk at the top of the hill. So long as patients have a warm house and a good fire to fly to when in-doors, it seems to me that the higher the residence over the level of the sea, the better chance have they of the arrest of the disease.

PROFESSOR WHEATSTONE.—It is understood to be the intention of Government to confer Knighthood on Professor Wheatstone, in consideration of his great scientific attainments and of his valuable inventions.—*Pall-Mall Gazette.*

Hospital Reports.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL DISEASES.

A SHORT time ago we gave a brief account of the accidents admitted during the year into the wards of this hospital, and carefully tabulated by Mr. Ring, Surgical Registrar, in the last volume of the reports. We propose to complete this aperçu of the surgical practice at St. George's, by an account of the surgical diseases as distinguished from accidents, and shall again have to utilize to a large extent on Mr. King's labours. To diffuse a knowledge of a volume like the St. George's Hospital Reports throughout the profession, is the best use to which we can put it, and the best compliment we can pay to the writers.

We have already given a summary of all the cases of Pyæmia (MEDICAL PRESS AND CIRCULAR, January 8th), and may therefore pass them over on this occasion. Of other general diseases we include erysipelas, sloughing, gangrene, and tetanus : these we treat to day, leaving diseases of special organs to a future occasion.

Of general diseases, then, we find that forty-three cases of erysipelas are recorded, and of these thirty-two were cutaneous, and eleven phlegmonous. Taking the cases of cutaneous erysipelas first, out of thirty-two cases, twenty-five were admitted with the disease, and seven only contracted it in the wards. All the cases that originated in the house were traumatic. Of those admitted, thirteen cases were traumatic and twelve idiopathic. A foot was often affected from wearing a tight boot ; twice scalp-wounds were attacked ; twice wounds of the face, &c. One case of idiopathic erysipelas of the scalp and face in a young woman terminated in an attack of mania. The cases of phlegmonous erysipelas were all traumatic ; eight were suffering from the disease when admitted, and three contracted it in the house. Of these two were of the forearm after amputation of crushed fingers, and one followed an extensive scalp-wound; the case terminated fatally from pyæmia. The treatment consisted in purgation, followed by bark, or more frequently of the tincture of the muriate of iron in half-drachm doses, with good diet and stimulants, especially brandy. The application of poultices, warm Goulard lotion, and laudanum, or of a lotion composed of half an ounce of tincture of iron to a pint of water, and occasionally incisions in the phlegmonous erysipelas, comprised the local treatment.

Phagedæna has been as rife as ever in the wards, and has marred some of the most promising operations, and carried off, or reduced to an extreme state of exhaustion, patients almost well. It was very frequent in the Fitzwilliam and Oxford wards soon after the houses had been pulled down in Grosvenor-place ; and it would appear not improbable that the miasmata arising from the recently-opened drains contributed in no small extent to produce the disease.

Forty-six cases occurred ; of these, thirty originated in the wards, and the remaining sixteen were admitted suffering from the disease. Of the thirty cases, ten occurred in the Fitzwilliam ward and eleven in the Oxford, with three in the Grosvenor and five in the Winchester—two smaller wards opposite the Fitzwilliam and Oxford respectively ; whilst on the opposite, or women's side of the house, only one case occurred, and that was in the accident-ward. The diseases attacked seven wounds, nine ulcers, six compound fractures, five cases of necrosed bone, two stumps after amputation, and one case of excision of the knee. Six cases necessitated amputation, four of which died. The greater number of cases occurred in the months of January, August, September, and October, although a few occasionally took place in all the months, May excepted. Seven cases proved fatal. Of the cases that broke out in the house, the mean duration of the disease was twelve days ; the maximum being thirty-six and the minimum three days. Of those admitted, the mean duration was 7·8 days ;

but many of these applied for relief some days after the sloughing had set in.

The treatment pursued presented but little variation. Gradually increased doses of opium, with bark and stimulants, were found the most useful remedies. Brandy was given in almost every case, but wine was sometimes substituted. Various topical applications were made use of; *e. g.* sulphate of copper, with extract of opium: sulphite of soda, and potassio-tartrate of iron; but those found most effectual were carbolic acid, charcoal poultices, and the unguentum viride (P. H.)

One case of senile grangrene occurred in a woman aged seventy-two. A slough formed on the outer side of the right leg, which on separating left an indolent ulcer, which took nearly three months to heal. The disease originated in a slight bruise which had been received two months previously.

Only two cases of tetanus occurred in the year; one after a burn, and one after a smashed hand. The first was treated by extract of woorali, the twelfth of a grain, subcutaneously injected, but soon proved fatal. In the second, sulphate of atropine was made use of, and death did not occur until the twelfth day. It is so interesting that we add Mr. Ring's history of it:—"M. B., æt. 28, a labourer, was admitted under the care of Mr. Tatum, with a smashed hand; the index-finger and part of its metacarpal bone were removed. He was placed upon ordinary diet, with beef-tea and a pint of porter. For the first few days he did well. On the evening of the 30th Oct., eight days after his admission, he complained of feeling his jaws stiff, and shortly afterwards had a slight rigor. Next day his jaws were still more rigid, and in the afternoon they were firmly locked; at the same time he suffered from opisthotonos, and complained of pain in the epigastrium, extending through to the back; his face was congested, deglutition difficult and attended with spasm. Atropine 1-45th of a grain was injected subcutaneously at 4 P.M., and again at midnight. After the first injection, his pulse was 144, and the spasm was partially relieved, but he complained of thirst and the locked state of his jaws; there was slight risus sardonicus, and his wounds looked dusky. Ordered brandy six ounces daily.

November 1st.—He was very restless during the night, and once persisted in getting out of bed to make water, when owing to the opisthotonos, great difficulty was experienced in getting him back again. The trismus continues the same, but the risus has passed off, the face being less congested. Pupils somewhat dilated; bowels confined. Pulse 120, and weak; temperature in axilla 100·4 Fahr. At 11 A.M. and again at 3 P.M. 1-20th of a grain of atropine was subcutaneously injected; and he was ordered half a pint of beef-tea, with brandy, to be injected per rectum, every three hours.

2nd.—He is in much the same state, but the risus has returned, and he complains of pain in the back of the neck, where the muscles are very rigid. Pupils dilated. At 11 A.M. 1-20th of a grain of atropine was injected. Pulse 106, stronger; temperature 100·1; respirations per minute 28.

3rd.—Was very restless during the night, and is now delirious. The opisthotonos and trismus are much less marked, and the jaws can be separated half an inch. The injections per rectum are returned almost directly after their administration. The wound is looking more healthy, and is discharging more freely. At 10.30 A.M. 1-20th of a grain of atropine was injected. Pulse 112, fuller; temperature 100·5; respirations 28.

4th.—The trismus is about the same as yesterday; when the jaws are separated, the tip of the tongue can be seen, dry and coated. He passed a quieter night, and is in less pain. The opisthotonos is much less severe; but he has occasionally starting pain in the back and right side, and now complains of pain in the hypogastrium and loins; has less delirium, but the risus is well marked. The injections are now retained for some time. At 10 P.M. 1-15th of a grain of atropine was injected. Pulse 100, softer and fuller; temperature 100·4; respirations 26.

5th.—The symptoms have undergone no change. 10.45 A.M.—Atropine gr. 1-20th.

6th.—The jaws fall open between the paroxysms of trismus, which, with the opisthotonos, comes on in spasms. Pupils dilated. Has had slight epistaxis. At 10.50 A.M. 1-20th of a grain of atropine was injected. Pulse 120, thready and sharp; temperature 102·4; respirations 30. Ice in India-rubber bags to be applied to the spine and back of the head, and the injections of atropine to be discontinued.

On the 7th and 8th he remained in the same state, but gradually got weaker; he was covered with a profuse offensive perspiration, and was very restless. Pulse 120, very weak; temperature 101·2; respirations 28.

9th.—There is less perspiration; the lips and teeth are covered with sordes. Trismus more marked; the opisthotonos comes on in paroxysms, with pain in the epigastrium. The injections are retained for about an hour; the bowels are rather loose, the discharges being dark, liquid, and offensive—consisting, in fact, of fæcal matter mixed with the injections.

On the 10th there was no appreciable alteration, except the increasing exhaustion. Pulse 132, very feeble; temperature 102; respirations 36; but at 5 P.M. the spasms became much more violent, and again at 12 P.M. they increased in severity, greatly impeding respiration.

At 3 A.M. on the 11th, it being evident that the man would not be likely to survive should another spasm supervene, laryngo-tracheotomy was performed. He appeared much easier after the operation; but a severe spasm coming on soon after, he sank asphyxiated under its influence."

During the early part of 1867 a case of tetanus recovered after the subcutaneous injection of a solution of sulphate of atropine and bimeconate of morphia combined. It will be related in the next volume of reports of St. George's.

At the post-mortem of the above case after hardening in chromic acid, sections of different portions of the spinal cord were made, and were examined under the microscope. As far as could be ascertained, the entire cord was perfectly healthy. No abnormal appearance could be discovered.

Mr. Ring remarked that in this case four points are worthy of notice.

"1st. That the atropine subcutaneously injected relieved the spasms.

"2nd. That the ice-bags had no effect; but of this it may be said that the restlessness of the patient rendered it difficult, and at times impossible, to keep them in their proper position for any length of time, which might to some extent account for the negative result.

"3rd. That the patient died from spasm, but not of the glottis, as the entrance to the air-passages was quite patent from the introduction of the tracheotomy tube; but probably the fatal spasm was of the diaphragm, and other respiratory muscles. This, however, does not disprove the assertion of those who declare that tetanus usually proves fatal by spasm of the glottis, but only that in this instance the fatal result was not attributable to that cause. Spasm of the glottis would be sufficient to cause death, without any affection of the other respiratory muscles; and laryngotomy under such circumstances would obviate the danger of asphyxia from that cause, and give the patient a further chance of lasting through the violence of the disease, though the probability is that spasm of the respiratory muscles or exhaustion would ultimately induce a fatal issue.

"4th. The patient survived longer than is usual, acute tetanus generally proving fatal on the third or fourth day; this man lived rather more than twelve days after the occurrence of the first symptoms."

CHAIR OF ENGINEERING AT EDINBURGH.—The Government has accepted the offer, made through the Senatus Academicus of Sir David Baxter, to found a Chair of Engineering, provided that a supplementary vote, equivalent to the interest of his benefaction, were asked from Parliament.

Literature.

PERIODICALS.

THE Half-Yearly's first claim a word, and of these, by right of seniority, our old friend Braithwaite. Here is the 56th volume for the latter half of 1867, which reached us from Messrs. Simpkin's punctually on New Year's Day. It opens with an excellent synopsis of the most practical articles in the volume, arranged alphabetically. It has always been the character of *Braithwaite's Retrospect* to be practical, and this character is well maintained. Our own columns have been freely drawn upon by the able editors.

We have also received the 46th vol. of the *Half-Yearly Abstract of the Medical Sciences*, published by Messrs. Churchill. This, also, is a selection of the literature of the half-year. Its aim is perhaps a little less practical and more scientific than its elder brother, Our own pages have also contributed to this. Those doubtful about which to consult, can easily try both—for they are both very useful and convenient-sized books.

QUARTERLIES.—The last number of the *Westminster Review* will interest many of our readers. We shall omit reference to its political articles as out of our province, to call attention to a careful essay on "Physiological Psychology," founded on Dr. Maudsley's new work, which we have not yet seen, by the bye, but which, from what appears in the *Westminster*, must be well worth attentive reading. The writer of the essay in the *Review* is convinced that we may yet make progress in our knowledge of the mind, by approaching it from the side of the body, and points out many of the advances made by the physiologists. At the same time, he admits, with Professor Chandler, that in spite of all the aid physiology has rendered, "it still remains true that physiology is one thing, and mental philosophy another." We are gradually brought up by the writer to the two opposing views:—that mental action is the "final achievement of organization;" or that there is a distinct ego apart, the chief argument for which is an appeal to individual consciousness. No attempt is made beyond this, except a statement that it is possible to reject both opinions, contenting oneself with studying facts, and "leaving the final generalization to an undefined and illimitable future." We confess to a certain feeling of disappointment in this conclusion, which, as it were, stays at the threshold, when we found the article suddenly closing with "which of all these is the best course to pursue we do not care to take upon us to decide." Not that we intend to take upon ourselves the responsibility, although we should have been happy to accompany this writer a little further. We ought to mention that there is also in the *Westminster* of this quarter, a learned essay on the "Origin of Electricity," which we are inclined to attribute to the pen of a foreign *savan*, and which is worth reading by everyone interested in such subjects—and who, in our profession, is not? We wish the many who make of electricity a mere amusement, would master this account of its origin. It would be worth their while to get the last number of the *Westminster* on purpose to do so, but they would also find in that review plenty of other change for their money.

The *Journal of Cutaneous Medicine*—(No. 4)—holds its ground bravely. The editorial commentary is rather more extended and very pleasantly written. A correspondent writes on the necessity for Professorships of Dermatology in our medical school, and exposes some of the selfish outcry that has been raised against special institutions. The hollowness of this abuse of useful charities has already been pointed out in our columns, and will again and again, we doubt not, form the subject of animated discussion, in the profession. Among the reviews there is a very smart article on the new pharmacopœia, pointing out how utterly inadequate are its formulæ for the treatment of cutaneous diseases of every day occurrence. The original communications are by Mr. E. Wilson, Dr. Sisson, Assistant-Surgeon Nicholson, and Dr. Bartley. The foreign literature of the quarter is reviewed by Mr. J. L. Milton.

The *Journal of Mental Science* has again reached us, after an intermission or two from some accident. This number opens with observations on the phenomena of life and mind, laid before the British Association, for the advancement of science, at Dundee, last September, by Dr. Robert Dunn. Then follows a less interesting but not less important paper—an elaborate abstract of the state of lunacy in Great Britain and Ireland in 1866. We recommend those who cannot or will not peruse the blue books of the Commissioners in Lunacy to avail themselves of this digest, which is sufficient for most purposes. Dr. Mitchell contributes a paper on the care and treatment of the insane poor; Dr. Gibson clinical cases, illustrating the value of the thermometer as a means of diagnosis in diseases of the nervous system; and Dr. Bateman, a paper on aphasia. There is the usual summary of notes and news, relating to the special subject to which this journal is devoted.

The *Dublin Quarterly Journal of Mental Science* has regularly reached us; and invariably keeps up its brilliant and practical reputation. As we have reviewed particular numbers of it from time to time, we need not now specify any particulars as to the volumes for 1867.

MONTHLIES.—We may first name the *Glasgow Medical Journal* which reaches us punctually every month, and always contains some practical and interesting matter. The clinical record is a valuable feature of this journal, as might well be expected, from the renown of the Glasgow hospitals, medical schools, and teachers. The proceedings of the Glasgow Medico-Chirurgical Association are naturally fully reported.

The *Edinburgh Medical Journal* has been regularly received. The January number for 1868 contains five original communications, eleven reviews, and much miscellaneous matter of interest.

Journal de Médecine Mentale.—This important and well-known French serial has been regularly received up to December, 1867. We need say nothing in commendation of the matter usually contained in it.

The *Journal de Médecine de Bordeaux* gives from month to month an excellent *resumé* of all the good work done in an active centre of medical learning and practice.

The *Journal de Médecine et de Chirurgie Pratiques* continues to hold its place as the most practical French medical periodical.

The *New York Medical Journal* and the *American Journal of the Medical Sciences* have both reached us regularly since we were mentioning periodicals last year. They both hold their places in the literary world, and require no recommendation from us. We have received an odd number or two of the *Pacific Medical and Surgical Journal*, and of the *Detroit Review of Medicine*. We hope they still survive, and enjoy all the support they deserve. From the numbers we have seen we formed a favourable opinion of them. A number of other American journals have reached us at irregular intervals. Even our exchanges do not come to hand with any degree of regularity—a sufficient indication that the communications between the two countries may be improved in many ways.

FORTNIGHTLY.—*Bulletin Général De Thérapeutique Medicale et Chirurgicale.*—We have received this famous periodical up to January 15, 1868. In that number is a paper on the employment of phosphorus in medicine, and, particularly, in progressive locomotor ataxy. Every number of this publication contains matter of peculiar interest to students of materia medica and therapeutics.

WEEKLY.—*Gazette Médicale De Paris.*—This has regularly come to hand up to the 18th of the present month; and it is fair to say that it maintains its interest and its usefulness to all who read the serials of French medical literature.

We have before us the *People's Magazine* of the Christian Knowledge Society from the commencement in January, 1867. Last year it appeared, as thousands of its readers are aware, weekly, and the volume for 1867 forms a very handsome and cheap present, which would not fail to be appreciated by the younger members of every family. Besides, tales by well-known authors, of which Holme Lee's *Mr. Wynyard's Ward* may serve as an example, we may state that there are many articles full of instructive and amusing information, while the magazine, being published by the Society for Promoting Christian Knowledge, requires no other guarantee that its tone is such that it may safely be introduced into every family. A NEW SERIES is commenced with this year. Henceforth it is only to be issued in monthly parts, price 6d., for 64 large pages, with a large coloured picture, a photo-lithograph, and numerous woodcuts. Certainly nothing cheaper can be expected.

The feature that has attracted our attention is that the January number (number 1 of new series) contains the first of some communications on "Physiology for Practical Use." This first paper is on the "Faculty of Hearing," and is evidently the production of one who is a complete master of his subject, as well as of literary skill. It is a model of the manner in which abstruse subjects may be popularized, and furnishes many useful hints without in any instance overstepping the bounds of propriety as to the information it is desirable to

impart to the public. If the succeeding articles on physiology should equal this, the *People's Magazine* will have accomplished something to give it a special claim on the support of the Profession. We should add that the new series is more clearly printed, on thicker paper, and is to be more profusely illustrated than ever. This is a very favourable opportunity of beginning to take in a magazine which will delight and instruct both young and old.

Though not exactly a periodical, we may here mention, as it appears in parts, the *Popular Educator*, which Messrs. Cassell are now re-issuing, and of which they have sent us the first part.

So, also, *Bible Animals*, edited by the Rev. J. G. Wood, and published by Messrs. Longmans. It will make a very handsome volume when completed.

We have also on our table a copy of the *Argosy*, which has passed into new hands, and is now edited by Mrs. H. Wood. We should have mentioned some other popular periodicals, but they reach us only occasionally, and cannot, therefore, expect to have space allotted to point out the articles we deem interesting to our readers.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JANUARY 29, 1868.

THE SICK POOR.

BLUE-BOOKS, and for that matter, all official papers, are long in making their appearance. Whether the Poor-law Board have been roused by the revelations of the medical journals to urge their servants to more prompt action ; or, whether only in the due course of official tardiness, it is needless to inquire. A Parliamentary return has been issued, which shows that nearly two years ago the board entertained some misgivings respecting the condition of some of our English workhouses, and directed Dr. EDWARD SMITH to visit and report upon "the sufficiency of the existing arrangements for the care and treatment of the sick poor" in those establishments. The report, as now issued, bears evident marks of haste, and requires a considerable amount of attention to enable the reader to grasp its scope. The conclusions to which the facts elicited point, are not summed up in the manner common to these publications, and, in order to get at them, it is consequently necessary to diligently study the closely printed appendix of 125 pages. A careful analysis of these will, however, repay the trouble, although it may lead us to wish that the facts had been made public before this. Unless the whole of the results were to be condensed for general reading, it seems useless to have kept them back until they were rendered unnecessary by independent inquiry. Whatever may be the view adopted as to the propriety of such investigations being undertaken by, or permitted to be carried out by, individuals, it will now be generally admitted that an impartial inquiry was urgently needed, and that in conducting it, our contemporaries have acted with great prudence, and yet great firmness. The facts with which they startled their readers, have been fully borne out, and their suggestions will, we hope, be to a large extent adopted.

Thus, although, as we have said, no effort is made to show the results of the 48 workhouses submitted to special inspection, the reiteration in different cases, that *much improvement* is needed, cannot fail to have its influence on the reader. So also will statements that skin diseases are prolonged for weeks, that the sick wards are in a "disgusting" state ; that infectious cases are often not separated from others, that the beds are often too short, that the coverings are too old and too thin (we suppose, threadbare), and that many other facts clearly show that the workhouses are, on the whole, in a very unsatisfactory condition. What more is needed to justify the indignation of the press and the country ? What more need we ask to show that when we hinted that Farnham was but a specimen of many other places, we did not speak unadvisedly ? What more can the Poor-law Board ask than the testimony of its own officers, to rouse it from its state of torpor ? What more need Parliament wait for before asserting its authority, and throwing its protection over the diseased pauper ?

Englishmen have too often prided themselves on the institutions of their land, and boasted that they alone have a Poor-law. This assertion, however, will not bear investigation, if we look rather at things than at names. The State does not support the English hospitals; they are the monuments of private charity. But it is time the fact were admitted that Workhouse Infirmaries are in reality national hospitals. As such they are a disgrace to this rich and proud nation. They are inferior to the hospitals of many a fifth-rate municipality on the Continent, in which we have found comfort and cleanliness presiding, and a cheerfulness among the patients we have never encountered in English Workhouse Infirmaries. Why should this be ?

We are convinced that no good will come from all these enquiries until the principle shall be admitted that poverty and disease demand pity—not repression. The sick pauper is not a criminal, and yet his lot is too often far worse than that of the regular "jail-bird." Is it not a disgrace that the workhouse should be subjected to rigours, restrictions, petty tyrannies, and miseries innumerable, that have long been banished from the prisons ? Why, the workhouses are in fact prisons; for even in the country they seldom have gardens, and the inmates are restricted from going beyond the high walls that enclose their dreary court-yard and exercise grounds.

Dwellers in large cities set a high value on their little slip of garden, their squares, their parks, and other open spaces: they love to get away from the toil of work and the din of the noisy streets, and breathe for a time the sweet atmosphere of the fields and lanes: they believe that the fresh air invigorates them as well as cheers them, and they make great sacrifices for it. What, then, can they think of the lot of the old, infirm, and invalid poor, shut up in these dungeons provided by their tender guardians, and only sniffing the blessed air after it has crossed the cess-pool or the other abominations that reek around the "great house"? In the name of all that is just, give the sick pauper liberty to enjoy fresh air and as much sunshine as our climate affords.

We have another subject to remark upon, and one that more intimately concerns our Profession. Dr. E. SMITH reports as one result of his inspection that "it cannot be denied that the quantities of stimulants and the length of time during which they are ordered are sufficiently astonishing."

He seems to think that the Poor-law Board will have to take cognizance of the freedom with which poor-law surgeons prescribe alcohol. We commend this fact to Mr. SKEY, whose book was reviewed in our columns last week. It goes far to show that our critic was right in believing that Mr. SKEY's lessons had not been without effect. We know not whether Dr. SMITH has any serious intention of stigmatizing the practice of the poor-law surgeons as extravagant or reckless, but we do know that if he has he will find them able and ready to defend themselves. It may be freely conceded that there is much to be said on both sides in any controversy that may be raised upon the vague issue of prescribing stimuli in this or that disease; but we presume that in individual cases the responsibility must be left with the actual attendant; and in the case of the poor worn-out victims of disease and poverty who people our workhouses, the presumption will certainly, in most minds, be in favour of the value of alcohol as a remedy. Whatever the guardians of parishes may think, depend upon it the country will not grudge the sick poor the amount of wine or spirit that may be given as medicine.

Whether all the alcohol that is ordered finds its way to the patients, and if not, what becomes of it, may not be an unnecessary inquiry, and we think it more within the province of the Poor-law Board than a discussion of the therapeutical uses of stimulants.

PUBLIC HEALTH IN DUBLIN.

WE have fairly launched forth upon another year, and we would do well to observe, in respect to the state of the Public Health in Dublin, what prospect opens around us. It will be our duty to accept our position, and to manfully endeavour to improve it.

As sound commercial undertakings require constant supervision and due stock-taking, so it would ill become us, as Medical Journalists, to ignore the information afforded by the returns of the Registrar-General, and, in the present instance, we will confine our inquiries to those referring to Dublin.

Of zymotic diseases, it affords us satisfaction to observe that small-pox caused but 2 deaths last year in Dublin, instead of 25 in 1866, and 71 in 1865. Here is good encouragement for steady perseverance in the exertions of our professional brethren in the practice of vaccination, and of those who have influence to induce all classes to observe the provisions of the compulsory Vaccination Act.

Measles of a very fatal type has prevailed, especially in crowded and otherwise unwholesome localities, carrying off 405 persons in 1867, against 54 in the previous year. Surely these figures should arouse our city authorities to more activity in suppressing the great nuisance attending upon the feeding and housing of pigs in many of the most crowded parts of Dublin, and not infrequently under the same roof with human beings.[1] One medical friend of ours lately found a case of malignant purpuric fever that proved fatal, and, a little time after, one of dysentery and one of diarrhœa, under the same roof with several pigs, and in close proximity to a heap of most offensive manure, containing 40 or 50 loads; nor was this all, for in a large room, adjoining one occupied by one of the sick and other persons, large quantities of straw, taken from the manure, was being dried to serve as bedding for the swine. We wish, too, we could say that this was an exceptional case.

Scarlatina carried off 259, against 109 in 1866. Nor do these figures represent the many persons more or less injured for a long time, and, probably, in many instances for life, by the dregs of this treacherous disease.

Diphtheria, whooping-cough, fever, and dysentery, fell from an aggregate of 799 fatal cases in 1866, to one of 573 last year; while diarrhœa rose from 313 to 320, and of cholera but 38 deaths were registered last year. Other zymotic diseases fell from 345 to 312.

The severe weather in the earlier and in the latter months of 1867, accounts for the increase in mortality in diseases of the respiratory organs, and in those from constitutional causes. For while the mean temperature of 1864 was slightly lower than that of last year, part of 1867 undoubtedly exceeded in severity the winter of 1864, and very much that of the winters 1865 and 1866.

The number of deaths from convulsions, 610, being largely attributable, in our experience, to deficient attention to the feeding and other sanitary requirements of infants, demands attention.

Another matter requiring careful consideration at the hands of the authorities and the profession, is the reappearance in Dublin of some cases of cerebro-spinal arachnitis and purpuric fever; we trust, however, that diligence in seeking out and removing those causes, which operate prejudicially upon the public health, will be shown by the authorities, and we feel convinced that great good will attend such measures in these last named disorders, as well as in so many others.

In conclusion, we would observe, that Dublin offers many facilities for the improvement of its sanitary condition, which, notwithstanding those remediable matters, to some of which we have adverted above, has not, on the whole, been unsatisfactory during the year just closed. Our reasons for this deduction are, however, not such as should induce us to take much credit to ourselves, but rather such as should rouse us to more activity in promoting the sanitary, and, therefore, the social and moral well-being of our fellow-citizens. For, notwithstanding the heavy death-rate arising from preventible zymotic diseases, and those other diseases also dependant upon deficient sanitary care, Dublin presents altogether, thanks to its favourable climate and healthful position, as we have said above, a not unsatisfactory general result.

[1] Since the above was printed, the Sanitary Committee of the Corporation have directed inspection of the premises alluded to, which will we trust be followed by prompt measures.

Notes on Current Topics.

The Public Health.

IN the third week of the year the annual rate of mortality in the large towns was 28 per 1000 persons living. It was 27 per 1000 in London, 28 in Edinburgh, and 31 in Dublin; 27 in Bristol, 24 in Birmingham, 36 in Liverpool, 32 in Manchester, 30 in Salford, 26 in Sheffield, 25 in Bradford, 24 in Leeds, 27 in Hull, 28 in Newcastle-upon-Tyne, and 32 in Glasgow. We are glad to find that the

mortality of London continues below the average—the number of deaths registered being 1596, which is 149 less than the estimated number for that week, which, if corrected for increase of population, should be 1745. We select, according to our custom, a few of the more important items from the official returns :—

"Three hundred and seventeen deaths were caused by zymotic diseases, the corrected average number being 355. Thirty-three deaths occurred from small-pox, 37 from measles, 36 from scarlatina, 9 from diphtheria, 73 from whooping-cough, 50 from typhus, and 14 from diarrhœa. One death from small-pox occurred in the West, 14 fatal cases were registered in the North (where the Small-pox Hospital is situated), 8 in the Central, 4 in the East, and 6 in the South districts. Measles was less fatal in the East districts. Ten deaths from scarlatina were recorded in the West, 13 in the North, 2 in the Central, 4 in the East, and 7 in the South districts. Ten deaths from whooping-cough were registered in the West, 15 in the North, 8 in the Central, 14 in the East, and 26 in the South districts. Three fatal cases of fever were recorded in the West, 12 in the North (where the London Fever Hospital is situated), 8 in the Central, 12 in the East, and 15 in the South districts. Phthisis proved fatal to 186 persons, 235 deaths occurred from bronchitis, 92 from pneumonia, and 91 from diseases of the heart.

The East-End of London.

In the midst of the great distress at the East-end of the metropolis—a distress, be it said, greatly alleviated by the noble charity it has called forth, and which seems in danger of abuse—it is satisfactory to learn, upon the evidence of reliable statistics, that the mortality of the district has not increased. We take the following from the Registrar-General's weekly return :—

"In East London, comprising the districts of Shoreditch, Bethnal-green, Whitechapel, St. George-in-the-East, Stepney, Mile-end Old-town, and Poplar, the deaths in the week were 321. This is less by seven than the average deaths of the corresponding weeks of the ten years 1858-67, the average being 328, which if corrected in the usual way for increase of population, becomes 356. The actual deaths were 321. The annual rate of mortality was 27 per 1000 in East London, 27 in West London, 27 in North London, 26 in South London, and 29 in Central London. Allowing for any possible decrease of population in East London, it is evident that the mortality there is not higher than it is in the rest of the metropolis."

A Substitute for Coal.

Some trials have been made at Woolwich Arsenal, by order of the Secretary for War, of bitumen as a substitute for coal in the manufacture of gas. It was found that gas made from bitumen was equal or superior to coal gas in illuminating power, and was more easily extracted. Further experiments showed that bitumen might prove an excellent fuel, its heating power being very great. It is calculated that this substance may be a safe resource as an investment. The War Department, in consequence of these results, has ordered 200 tons for use at the arsenal, and we may, possibly, shortly hear the result of further experimentation. If we do not anticipate that bitumen would compensate for a failure of the coal mines, we may be glad to find it succeed for purposes of this kind. Improvement in the quality of gas is certainly sadly needed.

The Sorrows of Sewage.

There are, at the present time, several towns "under sequestration." They have drained into their rivers, and actions have been brought to restrain them from injuring property, and so forth. What can they do? The streams are polluted, but how can they help that? Irrigation, say some, but the works necessary for that cannot be made in a day. Separate the solids from the liquids, cry others; but the same objection applies, to say nothing of others. Besides, supporting any new scheme to be agreed upon, how can the local authorities know what will be the result. Really for the tax-payers it is a very hard case, however much it may amuse engineers, and it ought to be remembered that it is the engineers who are too often to blame. Have they been urged by a blind enthusiasm, or have they been too anxious to secure work for themselves and the contractors they are in the habit of recommending? Oh! for a minister of health, in the person of some Doctor, who has devoted a life to the study of sanitary matters.

Vital Statistics of Rome.

The Chancelier Générale of Rome has commenced the issue of some vital statistics of the city. It appears that in a population, 215,573, there were in the first eleven days of the year, 214 births and 304 deaths. We would urge on the Marchese de Cinque that he might contribute much to the welfare of the city by extending the important information thus collected. A reliable set of meteorological data would be esteemed throughout Europe, and statistics of the causes of death would call forth the thanks of sanitarians, in all countries, and perhaps, lead to reforms, where they are so urgently needed.

The Hospitals of Vienna.

On the 11th December, 1867, the number of patients in the Hospitals of Vienna was as follows :—

There were in the General Hospital, 1812 patients (1022 male, 790 female); in the Wiedner Hospital, 600 (325 male, 275 female); in the Rudolphstiftung, 742 (443 male, 299 female); in the hospital of the Brethren of Charity, 194; in the Hospital of Ste. Anne for Children, 89, 7 being cases of small-pox, 3 of scarlet fever, 2 of morbilli, 1 of typhus. There were, therefore, 3437 patients accommodated in 5 hospitals, the number of inhabitants of Vienna is a little over half a million.

Mrs. Faraday.

A powerful appeal has been made to the Government to continue the pension of the late Professor Faraday to his widow. Faraday, in spite of the numerous discoveries which might have enriched him, had he been a seeker after wealth, died poor. That fact ought to be sufficient to secure the favour of those who regulate these matters. The simple-minded philosopher has passed away, leaving us the heritage of his noble example. Shall not the nation whose virtues he practised and whose vices he avoided, take charge of the lady who cheered him in his pilgrimage, and who remains to test the value set upon his worth and his services?

Clinical Communions.

We learn from an advertisement that this name has been adopted by one of the largest makers of church and academic robes; for a bag, they have introduced, "containing all the requisites for the administration of the Holy Communion to the sick, to take the place of the inappropriate and toy-like pocket services at present in use." Perhaps it is the habitual use of the word clinical in other senses; but we confess the advertisement looks odd to medical men unskilled in church æsthetics.

St. Andrews Medical Graduates' Association.

THE next General Session of the Association will be held in London on the 8th of April. The chief subject for discussion will be, "What should be the legal definition of Insanity?" At first it was thought that one general session yearly would serve all purposes of the Association, but, on mature consideration, and no doubt encouraged to a great extent by the success already attained, the Council has determined on holding another assembly in spring. We cordially wish them as brilliant a session as the last, and that by that time they may have secured their franchise. The subject chosen for discussion is a large and important one. There are many St. Andrews men who possess a high reputation for their acquaintance with it, and we trust they will come forward and take part in the discussion.

Condy's Fluid.

THE French Minister of Agriculture, Commerce, and Public Works, has, on the recommendation of the Consulting Committee of Public Hygiene, after due inquiry and examination, authorised the sale in France of Condy's Fluid, for the purification of decayed meat and tainted water, in addition to the usual purposes of disinfection.

Coming so soon after the inquest on a woman said to have died from eating poisoned goose (reported in our last week's number), at which it was stated that three cases had occurred wherein vomiting and purging had been caused by eating tainted salmon, this decision is of considerable interest. The subject is sufficiently important to make it very desirable that full details of those cases should be published in order that their bearing on the question of the value of Condy's Fluid, as a means of restoring soundness to tainted provisions, may appear. We should be very glad to place sufficient space at the disposal of Professor Rodgers for this purpose—the more as we have heard from other sources that proper treatment by Condy's Fluid is most effectual as a preservative against the dangers of tainted meat.

WE are sorry to see that the medical interest is likely to be divided in the election of a Coroner for West Middlesex. Mr. Brown, as we anticipated, will retire, but Drs. Hardwicke and Diplock both seem determined to go to the poll. We should be very glad indeed to learn that an arrangement had been made likely to lead to a triumph of the principle that only a medical man ought to hold this office.

DR. LANKESTER is indignant with the Government for not producing prisoners before the Coroner's jury on their way to or from the Police Court. Many will at once conclude that an attempt is being made to diminish the influence of the Coroner's Court. We do not, however, fear this; but imagine that it is entirely a matter of public convenience, and one within the competence of the Home Secretary to dispose of.

A CORRESPONDENT of the *United Service Gazette* calls attention to the distinctions in respect of honours between the French and English services:—An Imperial decree in the *Moniteur* makes seven promotions to the rank of officer in the Legion of Honour, and 34 nominations to the dignity of Knight in the same Order, for acts of devotedness in Algeria during the last epidemic of cholera. The military medal is conferred on 43 soldiers; while to civilians have been awarded 32 gold, 25 silver, and 12 bronze medals for similar services. How gratifying to the recipients! how different to the flimsy acknowledgments made by our own Government to those of their medical officers who have done the State some service unflinchingly! For example, see the following, received by a relative of mine from a P. M. O., India:—

"SIR,—Having on a recent occasion brought to the notice of the Director-General the able way in which you performed your duties during the recent outbreak of cholera, I have the pleasure to forward the answer to the same at his request."

The answer:—

"I have the honour to request you will convey to —— the expression of the Director-General's qualification at receiving such a favourable report of his conduct; and to add the pleasure it has afforded Sir James Gibson to direct that the same may be noted in the record of his services."

A cross or medal, if it were but the size and cost of a farthing, would, I believe, have been far more acceptable and gratifying.

Society Proceedings.

SURGICAL SOCIETY OF IRELAND.

Dr. ADAMS, President of the College, in the Chair.

(Continued from page 81.)

ON reviewing the symptoms and pathological appearances of this case, the following observations suggested themselves to me as worthy of consideration:—

1. The apparent good health of the patient up to the very night on which the disease set in, and the suddenness of the attack. In this respect, however, the case formed no exception to the general rule.

2. The early accession of a state resembling coma, which, however, was not true coma; the pupils were not dilated, and the patient was somewhat conscious. This also was observed in other cases.

3. The ascending and descending character of the respiration, accompanied by a somewhat similar condition of the pulse; this combined peculiarity being most distinctly marked on the first day, and gradually decreasing till the evening of the third, when it was not perceptible. This kind of respiration does not appear to have been observed in other cases.

4. The symptoms of arachnitis so little commensurate with the amount of cerebro-spinal lesion.

5. The little disturbance manifested in the circulatory system except at the very first; and its almost normal condition on the evening of the second day, when, I have noted that, "the pulse was down to 90, and was full, strong, and almost deserving the description of being regular."

6. The absence of many symptoms indicating the typhus condition; the pulse not rising above 112, except at intervals on the first day; the temperature (which I regret was not taken earlier) not rising beyond 101°·4 between the evening of the second day, and the morning of the fourth or last; the absence of typhus prostration, of floccitatio and subsultus tendinum, of the tremulous tongue, and of deficiency or feebleness of the first sound of the heart, although there seems to have been sufficient time for these symptoms to have been developed when one considers the rapid course of the disease.

7. The patient's apparently favourable condition on the morning of the fourth day, and yet his rapid sinking, and death, without any known adjunct cause, on the evening of the same day.

8. The fact, that this case is an example of those in which the dark spots are combined with signs of inflammation of the cerebro-spinal membranes.

This last observation leads to a consideration of the nature of the epidemic, of which this case was an example. Was the case one of purpura maligna, or of cerebro-spinal arachnitis, or a combination of both, or are we to consider these two terms synonymous? The question of the identity of, or necessary connection between, cerebro-spinal arachnitis and that epidemic

disease characterised by dark purplish spots, has already been much debated.

When one frequently sees cases of extensive purpuric extravasations, combined with signs and symptoms of inflammation of the membranes of the brain and spinal cord, it is at first a very natural conclusion to arrive at that these two conditions are necessarily connected as parts of the same disease. But such a conclusion may or may not be correct. I should be slow to accept it till we had further proof of its truth. If it were true, we should expect that in every case which has lasted sufficiently long, there would be some appearances, however slight, of inflammation; but there are many cases on record in which there was not the least appearance of such a condition. I myself published such a case in THE MEDICAL PRESS AND CIRCULAR last April.

In that case there was not the least trace of inflammation in any of its stages, and in this statement I will be supported by my colleagues who assisted me to make the examination of the body. There was some congestion of the larger veins of the cranial and spinal membranes, but there was a total absence of capillary congestion. Moreover, all the organs of the body which I examined were congested, and why might not the condition of the cerebro-spinal membranes in that particular case have merely shown that they formed no exception to the state of the other organs? I do not say that I believe this to be the case, but proof to the contrary is wanting.

It seems to me—

1. That the disease is primarily and essentially a specific blood-poisoning.

2. That, as certain other blood poisons have a special tendency to induce inflammation of certain parts of the body, so the poison of the disease in question has a peculiar tendency to induce inflammation of the cerebro-spinal membranes.

3. That the disease may run its course without any such complication.

CEREBRO-SPINAL BLOOD-POISONING.

Dr. HEWITT then read the following paper:—

I wish to draw the Society's attention to the following case of cerebro-spinal blood-poisoning, as affording an instance of the absence of any inflammatory product, in a case which presented marked symptoms of the so-called cerebro-spinal arachnitis. I made the post-mortem at the request of my esteemed colleague, Mr. Croly, and to him I am indebted for the notes of the case during life, as recorded by Mr. Brown, the Purser student.

On the morning of the 12th November, 1867, a boy named Terence Byrne, was brought to the Dispensary of the City of Dublin Hospital, where he was presented for treatment to Mr. Croly. Even at that time there were evidences of the serious nature of the case, in a peculiar stiffness of the muscles of the neck, and a slight retraction of the head, and Mr. Croly pointed out the case to the class, as being most likely to prove one of malignant purpura. Notwithstanding the warning given to the parents, as to the dangerous nature of the case, they made light of it, and took the boy home, where he hourly grew worse, and at two o'clock in the morning of the 13th November, he was admitted into the hospital, when his state was as follows:—

His head was forcibly retracted, and the muscles of the neck were rigid; his eyes had a wild staring appearance; the pupils were widely dilated, and almost insensible to light. There were a few dark plum-coloured spots, of very irregular shape, scattered over the left hip and under the right axilla. These did not disappear on pressure. The pulse was very fast, and so irregular that it could not be counted. When spoken to, he seemed perfectly unconscious. He screamed continually, and from the motion of his hand to his head, the distress appeared to be localized there. He could not be kept quiet, even for a moment, but was incessantly tossing his arms and legs to and fro, and turning from side to side in the bed. Three grains of calomel were placed far back on the dorsum of his tongue; and it was attempted to administer small quantities of wine, but it was found impossible from the violent restlessness of the patient, to get him to swallow. Enemata of small bulk, consisting of strong beef-tea and wine, were administered. Some of his hair was removed, and a cold lotion was applied to his head. Dr. Chapman's ice-bag was next tried. Applied along the cervical and upper dorsal spines, it, for some short time, seemed to afford relief, but he soon became worse, and after a short period of convulsive jactitation, he became comatose, and in half an hour died without a struggle.

Autopsy seven hours after death.—Rigor mortis was fully established. The fingers were clenched, and were of a diffuse plum-colour, which on pressure disappeared and returned slowly on removing the pressure. The same discolouration extended over the posterior and external aspect of both arms, and, in a less degree, was visible on the legs, thighs and loins. The spots observed before death are still evident, though less distinct; they do not disappear on pressure.

The cerebral sinuses were engorged with very dark blood, which was very faintly coagulable.

The veins of the dura mater were also greatly congested, and those on the brain, especially at the posterior and inferior portions of the cerebellum, were loaded with blood. There was no opacity or thickening of the arachnoid in any part, nor was there a trace of any exudation into the sub-arachnoid space.

The substance of the brain was of normal consistence, and was not much congested. The lateral ventricles contained, each, about half a drachm, or more, of a turbid, slightly bloody serum. The corpora striata, and optic thalami were healthy.

When the vertebral veins were cut across, in taking out the brain, a large quantity of fluid blood oozed from them, and after a few minutes, a great many bubbles of gas, which made the blood assume a frothy appearance, this was more evident at the right side.

The cervical portion of the spinal cord alone could be examined, as the relatives were most anxious that as little as possible should be done, but not a trace of any exudation was visible; the arachnoid membrane was perfectly transparent, but there was considerable congestion of the vessels of the pia-mater.

In the commencement of this paper, I have advisedly called the disease cerebro-spinal blood-poisoning, to avoid adopting a name which, I conceive, conveys a wrong notion as to the pathology of the disease; namely, that it is a cerebro-spinal arachnitis.

Now, not only is this not so, for several of the published cases indicate an entire absence of any symptom which would indicate such inflammation during life, and merely some congestion in the nervous centres, after death, (and these very often are the worst and most rapidly fatal cases), but I conceive that a careful review of all the cases will convince any thoughtful mind, that what we have to deal with is not so much an acute inflammation of the brain and spinal cord, as a malignant blood-poisoning, which, very frequently, I grant, but not invariably, produces a secondary effect on the small vessels of the cerebral and spinal pia mater; giving rise to congestion, and finally to exudation, in those cases that live sufficiently long to allow of its taking place. And, indeed, in those cases in which I have seen an exudation, it has been either purulent, or, at most, an extremely cacoplastic form of lymph, such as you may see in the pleura or pericardium, in cases of blood-poisoning, and not that organizable product, which is wont to be the result of idiopathic acute inflammation. Once more, it has been very generally observed, that measles, typhus fever, scarlatina and other diseases, have, of late, exhibited a tendency to be complicated with a cutaneous eruption, very similar to that of the cerebro-spinal disease, and have even, in many instances, proceeded rapidly to a fatal termination, and even, in not a few instances, shown signs of pain in the head and neck, muscular rigidity, &c., which denote a departure from their normal course.

Now these very diseases have long been recognized as blood diseases, and a due allowance is made for differences in their phenomena produced by difference in the individual affected, or the epidemic. But while we thus have allowed for the alteration which may be produced by the individual, have we sufficiently taken into account the changes that may occur in the blood-poison. Are the poisons of these diseases subject to no change? I think that when we consider how mutable all organic compounds are, and how easily they are broken up into others, we must allow that it is at least very possible that they may undergo such alteration as may render them capable of producing effects that they would not otherwise do.

I would thus explain the abnormal and virulent type that some blood diseases have assumed during the last two years, and I see nothing more likely to account for this apparently new disease, than that some blood-poison, be it that of cholera, typhus, or measles, should undergo some decomposition which would render it capable of altering the blood in so profound a manner as to render it unfit for the healthy nutrition of the nervous system. And here I may draw attention to a circumstance in this case which may serve to indicate the alteration in the blood, namely—the presence of gas in the veins. It was

observed only in the vertebral veins in this case, but in another case in which I made an autopsy with my colleague, Dr. John Hawtrey Benson, we observed bubbles of gas in some of the cerebral veins, and in the internal mammary vein.

It has been objected to the view given above, that many of the cases exhibit, from the first, most marked symptoms of so-called cerebro-spinal arachnitis, and that it was not till late that the cutaneous affection has appeared, if, indeed, it has appeared at all. To this I answer, that in some cases which have exhibited the above-mentioned symptoms in a marked manner, and have proved rapidly fatal, there has been observed rather congestion or purulent exudation, than incipient inflammation or organizable lymph.

Again, those who favour the theory of inflammation have never offered a very rational explanation of the cause of the eruption. Some have thrown out the idea that it is produced by the effect of the inflamed spinal system on the sympathetic, which governs the capillary circulation. But why, I demand, is it reserved for this late period to discover, when spinal or cerebral meningitis never produced such an eruption before?

Of the two hypotheses, I think the one that best explains all the phenomena of the disease is that which regards it as due to a poisoning of the blood; at least, so far as our knowledge of the disease at present extends. It behoves us, however, to lose no opportunity of studying this disease, and while I have put forward these ideas as to the nature of this affection, I do so in no dogmatic spirit, but as conveying my own impressions as to the bearing of the facts at present within our reach.

With regard to treatment, if it be true that the disease is due to a deterioration of the blood, which may produce a local exudation of a purulent or cacoplastic nature, it will be evident that there is little use in drenching your patient with mercury, or in any form of active depletion. Much more good may be done by iodide of potassium, or bromide of potassium, combined with small quantities of belladonna and opium, the former to counteract the injurious effect of the latter while aiding its action, by stimulants and nourishing diet, and I must confess that I think there are many cases where the spinal ice-bag will check one of the tendencies to death, while it affords time for nature to exert his sway, and gain the upper hand. I do not expect from this, or any other remedy, more than occasional success, but I am firmly persuaded that it, at least, deserves a trial at our hands, and I have, in one or two cases, witnessed the power of this remedial agent, for which we are indebted to Dr. Chapman's unwearied zeal and energy.

Mr. JOHN MORGAN asked how long Dr. Hewitt kept up the application of the ice-bag? He had lately had a case of this kind, and treated it with the ice-bag with the happiest results. The case was similar to that detailed by Dr. Hewitt—the child was about the same age, had dilated pupils and all the other symptoms. He applied the ice-bag very early, within a few hours after the patient was admitted to hospital. The pupils were dilated as widely as possible, but the very instant the ice-bag was applied, they contracted, just as rapidly as a ray of light would make the pupil contract. There was a remarkable appearance on the skin. The boy had about five spots of purpura on his thigh, about the size of the head of a large pin, and a blush over the entire surface of the body. The very moment the ice-bag was applied the blush disappeared. As soon as the ice melted, the blush began to return, at least during the first twelve or eighteen hours; and as soon as he put on a fresh ice-bag it disappeared. In this case the ice-bag was kept constantly applied for three days, until the patient was out of danger, and the higher the ice was placed over the spine the greater was the effect produced.

Dr. HENRY KENNEDY said, as far as his present knowledge went, he sided with the authors of the two cases brought forward that evening. The epidemic described by Dr. Darby and the late Dr. Mayne, was one of great fatality, often running its course in two or three days, and presenting the most intense form of cerebro-spinal inflammation; and yet it was certain that no purple spots existed in those cases. Dr. Kennedy proceeded to say that three years since, cases of well marked cerebro-spinal arachnitis began to be admitted into the wards of the Cork-street Hospital, and have continued to be admitted occasionally ever since. The great majority of these cases had no spots whatever, and what was specially worthy of notice, were very generally amenable to treatment. On the contrary, the few cases he had seen, where the disease with the purple spots existed, were nearly all fatal. It was a fact, too, that cases of the disease with the spots had been met, and yet no arachnitis was found after death. One such case had been given that evening. And this reminded him that in any of the acute fevers, such as scarlatina or typhus, where the disease ran its course with great rapidity, all that was found after death was violent congestions, attended with more or less serious effusions, very similar indeed to the new disease. The evidences of inflammation, which he allowed had been very frequently present, he considered as being superadded phenomena. As to the treatment he believed it might be more antiphlogistic than was commonly thought advisable. He had used leeches with mercury, and at the same time gave wine, and had no reason to be dissatisfied with that method of treatment. Some of the cases attended with spots recovered by these means from the comatose or acute stage, but died after some weeks from hydrocephalus.

Dr. CROLY said he had seen the first case of this disease which occurred in Dublin, the case being that of a pupil of his own, living in his (Dr. Croly's) house. The young man was in rude health up to Sunday, the 18th March, the year before last. He complained of rigors and general febrile disturbance, and on Sunday night, without the slightest symptoms of cerebro-spinal arachnitis having manifested themselves, the purple spots made their appearance. On noticing an injected condition of the conjunctiva, and a general look as if infected by the poison of typhus, he examined him for spots, and found a number of spots of a magenta colour on the arm. They increased to a large size, and he sought the aid of Dr. Benson. Dr. Benson did not exactly know what to term the disease. He supposed it might be some violent form of purpura. The symptoms continuing, Dr. Stokes saw the case in the morning with Dr. Benson, when he said that he thought he had known every Irish disease, but he had that day learned a new one. This patient died within twenty-four hours without one symptom of spinal arachnitis. He (Dr. Croly) had no doubt that he died of blood-poisoning. The moment he saw him ill he put warm applications to his feet, gave him brandy, applied mustard to the extremities, and injected brandy and quinine into the rectum. The excessive vomiting prevented any mercury being given by the mouth, and unless it were rapidly rubbed in through the skin, it could not have been administered. He was unfortunate enough to see six cases of this disease, which he described in the College of Physicians, and in all the six cases death was very rapid, and there were very few symptoms of cerebro-spinal arachnitis. He was decidedly of opinion that purpuric fever and cerebro-spinal arachnitis were distinct diseases; and that if the latter made its appearance in those cases where the purple spots existed, it was only a complication.

Dr. MAPOTHER said the epidemic first appeared in the barracks of Versailles, and in other French towns, in the year 1836, and it then presented no purpuric spots. In 1865 it appeared in West Prussia, and Dr. Saunderson had recorded several cases of that epidemic, and there were but few of them with purpuric spots. The same was to be said of the American outbreaks of the disease. As to the question of the identity of the cerebro-spinal and purpuric forms, Mr. Rainey had stated his opinion that in no places did the sympathetic filaments abound more than in the arachnoid membrane. Inflammation of that structure, therefore, might readily influence the vasa motor function of the sympathetic system, and lead to effusion of blood. In the discussion which took place at the Epidemiological Society, Dr. E. Crisp stated the very remarkable fact that pigs can be given this disease by being fed on any of the flesh of animals that had died of splenic apoplexy or braxy, and it had been proved by Du Vaine that braxy was due to the entrance of bacteria into the blood from the air of the field in which the animals fed. He (Dr. Mapother) had obtained in Paris a beautiful specimen of bacteria in the blood of an ox which had died of splenic apoplexy. Dr. Crisp's assertion it would be well to verify or refute.

Dr. JACOB, referring to the interesting pathological specimen which Dr. Croly had shown, said he had occasion lately to extract an ossific cataract from a man. This form of disease occurs principally when the lens is dislocated into the anterior chamber, and remains there. On diagnosing the case he did not know there was lenticular calcification, and only perceived it on passing in the knife. The lens was analyzed by his friend, Dr. Mapother, who found it principally composed of calcareous matter with some phosphates. It was not associated with a gouty diathesis as would have been naturally expected, and it was a change that seemed to be dependant on the removal of the natural vascular supply from the lens.

Dr. MAPOTHER said he found that the cataract alluded to by Dr. Jacob, disappeared in effervescence on the application of

acetic acid. This case seemed to show, that a body like the lens when removed into the anterior chamber, and deprived of any vascular supply, could nevertheless undergo an ossific change. Those parts which were least vascular, were the most likely to be thus affected, and these were not blood changes but chemical alterations in the tissue. Every one of the tisseus contain a considerable quantity of lime salts, and by the removal of the other constituents of the lens, these salts form, as it were, a lenticular skeleton. Dr. Croly's case was interesting as showing ossification in the vitreous humour.

Dr. HEWITT asked if Dr. Jacob's specimen was hollow?

Dr. JACOB said, it was not perfectly hollow; there was a plate of apparent bone, but some of the lens matter was there also.

Dr. STAPLETON asked Dr. Mapother whether he meant ossification or calcification?

Dr. MAPOTHER replied that he meant calcification.

The meeting then adjourned.

Address.

LESIONS OF CUTANEOUS SENSIBILITY IN DISEASE.

THE INAUGURAL ADDRESS DELIVERED IN THE DINING HALL OF TRINITY COLLEGE.

JANUARY 21, 1868.

By E. W. COLLINS, B.A. Med. Sch.

AUDITOR OF THE DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

MR. PRESIDENT AND GENTLEMEN—Our age is one of progress. Few are the minds its influence has not reached, cold is the breast its spirit has not animated. "The reason of man," said the eloquent Graves,[1] "is now more fully employed than at any former period. Her empire extending from the old to the new world, from Europe to our antipodes, has encircled the earth: the sun never sets upon her dominions—individuals must rest, but the collective intelligence of the species never sleeps: at the moment one nation, wearied by the toils of day, welcomes the shades of night, and lies down to seek repose, another arises to hail the light of morning, and refreshed, speeds the noble work of science." Yet, in the midst of a progress so universal, and in none more remarkably exemplified than in our own profession, there are to be found those who would have us believe that the healing art is lagging behind. How false such an opinion, so frequently refuted, is, it is not my purpose here to inquire. Enough be it for us that in thus meeting together we witness against it: for, we hail with joy the formation of that society whose birth we have assembled to celebrate. The offspring of progress, we bid it welcome in this hall which has been the cradle of so many of its kindred. For, as a germ long bedded in a barren soil, at length under the influence of milder suns and vernal showers, unfolds its tender bud, even so the germ of our society, long latent, has unfolded itself under the warm influence of the late progress of our school—a progress in which we recognize, as it is no less our duty than it is our pleasure to bear witness, the untiring energy and the self-sacrificing devotion of one who so ably fills the position of University Anatomist. To this great cause we would fain ascribe the yearnings which prompted to the formation of this society; and hence, undoubtedly, it was that within the past few months this project came to be seriously entertained. Its promotion was entrusted to a Provisional Committee of students in medicine: their fellow-students were invited to co-operate with them: and the objects contemplated in the formation of the society were submitted to the Board of the University. Shall I say that those objects met with its approval? They met rather with its hearty support. Nor can I select a more fitting opportunity than this for returning the thanks of the society to the Provost and Board of Trinity College for the liberal and kindly feelings they have manifested towards it at its birth. That such friendly sympathies may be long continued towards it, and that it may not be unworthy of them, shall be, we fondly trust, its earnest endeavour. The society, established under these auspices, next proceeded to the election of its officers, and determined on holding its Inaugural Meeting early in the succeeding year. How far its efforts in this respect has succeeded your presence to-night is a proof. Its pleasures alone are alloyed by the absence from our midst of one who, with an eloquence peculiarly his own, has so long wielded the sceptre of surgery in this school. Our earnest desire is that ere long he may be granted to reappear among us, with renewed health and renewed vigour, to resume that sceptre which he wielded so well; and, our prayer for him is, as for Augustus was that of the Roman bard of old

Serus in cœlum redeas, diuque
Lætus intersis populo Quirino,
Neve te nostris vitiis iniquum
Ocior aura
Tollat—1

Among the objects which our society has for its aim is the reading of essays to be followed by debates, on subjects connected with medicine and surgery and the allied collateral sciences. But I should be sorry to think that these, though our chief, should be our only objects in thus meeting together. What a wholesome stimulus shall we not each experience in our pursuit of knowledge? How much closer shall not our connection be one with the other? What friendships may I not say it will foster, what differences remove? And, drawn thus closely together during the short, aye too short, period of our student life, it may not be too much to hope that the same friendships, the same kindly feelings, the same desire for mutual improvement and encouragement, thus engendered, and withal the same freedom of thought, will animate us when no longer students within these walls. Nor can we overlook the great advantage to ourselves of such a society in enabling us, while students, when much is not demanded of us, to bring together our scattered ideas and communicate them; to improve and harmonize our modes of thought and of expression; to cultivate conciseness of language, so as, while avoiding all that is superfluous, to leave unsaid nothing of importance; to correct all errors of style and inelegancies of delivery. The necessity indeed of such a society must be evident to all, not alone those belonging to, but those outside the rank of students. We propose no imaginary benefit. Similar societies exist in connection with the Colleges of Physicians and of Surgeons and other medical schools, which each and all have shed a lustre on those bodies. This school, united as it is by so many ties with our University, especially demands it. Among the many advantages which it possesses let us not allow this to be one of the least. We believe that such a society was wanting, nay more, that it will succeed. Yet, if we desire its success, there are certain principles that should guide us in pursuing our inquiries and in examining our conclusions. Such advice it would be as unbecoming as distasteful in me, one of your number, to offer to you, crude and undigested as it necessarily should be. I shall lay before you rather the experience of one whose high culture and reputation alike demand for him your respect.

"If," says Abercrombie,[2] "we would contribute something towards diminishing the uncertainty of medical researches and introducing a greater degree of precision into medical reasonings, there are certain rules which we ought to keep steadily in view in conducting our own inquiries and in examining the investigations of others.

"First, we should endeavour to have all our terms fully and distinctly defined. Secondly, in making a statement of facts, or in examining a statement of another, we should be satisfied that the facts are authentic; that they are fully and fairly stated, and that no important facts are left out of view, disguised, or modified. It is also necessary that no facts not really connected with the subject be taken into the statement. Thirdly,"—and on this he lays great stress—"when we find two events placed in a state of contiguity to each other, we should use the utmost caution in considering them connected in the manner of cause and effect. Fourthly, in deducing general conclusions or general doctrines, we must beware on the one hand of assuming imaginary principles which cannot be proved really to exist, and on the other of deducing principles or doctrines from a limited number of facts. Finally, in examining a statement made by a writer there is cause for exercising similar caution." The rules thus shortly proposed he submits with diffidence as those which should guide us in our inquiries. Without constant attention to them numerous facts may pass before us from which we may derive no knowledge; and many ingenious and plausible doctrines may be presented which tend only to lead us into error. "In the same manner," he continues, "the benefit which a physician derives from his own opportunities of

1 Clin. Lects. on Practice of Medicine.

1 Horace, Carm. I. 2, 45.

2 Treatise on the Intellectual Powers.

observation is not in proportion to the period of time over which it has extended, or the number of facts which have passed under his view, it must depend on the attention with which he has observed these facts and traced their relations to each other, and the caution with which he has ventured on assuming the relation of cause and effect, or has advanced to general principles. It must depend further on the jealousy and suspicion with which he has received even his own conclusions, and the care with which he has corrected them from time to time by further observations. The farther a physician advances in the course of rigid inquiry, he becomes more sensible of the difficulties with which his science is encumbered, more suspicious of all general conclusions, and more anxious to bring them to the test of minute and extensive observation; in particular he learns to exercise more and more caution in considering any one event in medicine as the cause of another. In real acquisition consequently his progress is slow: for much of this improvement consists in detecting the fallacy of systems which he once considered as established, and the instability of principles in which he once confided as infallible. But these discoveries prepare the way for actual progress, and the conclusions at which he does arrive then fall upon his mind with all the authority of truth."

Not long since it was my privilege to listen to an address delivered by the talented Auditor of the Junior Philosophical Society[1] on the subject of Æsthetic Culture—an address remarkable for the richness of its language, for the elegance of its style, still more, for the ideas which it embodied. A thought, thus suggested, arose that for us this subject is capable of a still wider acceptation, and that on this occasion some notices of cutaneous sensibility, in connection with its exaltation and diminution in disease, may not be devoid of practical interest. Yet no one can feel more sensibly than I do how unworthy I am to address such an audience on such a theme. I have undertaken the task in no spirit of presumption, and I approach its consideration with no small misgivings.

"We find every organ of sense," wrote the illustrious Bell[2] "with the exception of that of touch, more perfect in brutes than in man. In the eagle, hawk, gazelle, and feline tribe, the perfection of the eye is admirable: in the dog, wolf, hyena, and birds of prey, the sense of smell is inconceivably acute: and, if we hesitate to assign a more exquisite sense of taste to the inferior animals, we cannot doubt their superiority in that of hearing. But in the sense of touch *man* claims the superiority."

Our notions of sensibility are formed from that of the skin; and, so familiar are we with the painful effects of injuries upon the surface, that all are prone to imagine that the deeper the injury the more dreadful the pain. Yet such is not the fact. The sensibility to pain varies with the function of the part. To such irritants as would give the skin pain the internal parts are wholly insensible. Their peculiar sensibility is dependent on the functions they perform. I can illustrate this no better than by referring to the insensibility to touch of the great centre of organic life.

It is on record that a noble youth of the family of Montgomery, from a fall and consequent abscess upon the side of his chest, had the interior marvellously exposed. Harvey thus relates an interview that he had with him at the request of Charles I. "When I had paid my respects to this young nobleman, and conveyed to him the king's request, he made no concealment, but exposed the left side of his breast, when I saw a cavity into which I could introduce my fingers and thumb. Astonished with the novelty again and again I explored the wound, and, first marvelling at the extraordinary nature of the case, I set about the examination of the heart. Taking it in one hand, and placing the finger of the other on the pulse at the wrist, I satisfied myself that it was indeed the heart which I grasped. I then brought him to the king that he might behold and touch so extraordinary a thing, and that he might perceive, as I did, that, unless when we touched the skin, or when he saw our fingers in the cavity, this young nobleman knew not that we touched the heart."

And yet, the heart insensible to touch, is alive to every variation of the circulation, to every alteration of posture or of exertion, and is in sympathy of the strictest kind with the constitutional powers.

Again, sensibility to the varieties of temperature is a different endowment to that of touch or of pain, and sensibility to the stimulus of tickling is a different endowment from either. All these sensations have their seat in the skin, and are merely varieties of cutaneous sensibility.

There is yet another sensation of a very peculiar character—that which accompanies muscular contraction. For, every muscular contraction seems to cause an excitation of the sensitive nerves in its vicinity, and the degree of excitation being in proportion to the degree of energy of the contraction and to the resistance, we have thus an excellent means of judging of the state of the muscles. But this muscular sense strictly does not come within the limits of my subject. I dismiss it therefore from consideration, merely observing that, even if muscles have peculiar nerve-fibres which go up to the brain along the anterior roots, as J. W. Arnold[1] has tried to show, to give there some special sensations in correspondence with the degree of contraction, it seems nevertheless quite certain that the nerves of the other sensitive impressions, which have been mentioned, do not pass by the anterior roots, and that therefore the theory of Sir Charles Bell as regards these remains entire.

The kinds of sensitive impressions therefore which may come from the various portions of the body, leaving out of consideration the four higher senses, the peculiar sensation given by the genital organs, and the muscular sense, are those of touch, tickling, heat and cold, and pain. The nerve-fibres employed in the transmission of each of these, as the researches of Brown Séquard[2] have shown, are as distinct one from the other as they all are from the nerve-fibres employed in the transmission of the orders of the will to the muscles. For there are many cases on record which prove that the loss of each may exist alone. But, though for a long time several cases of this form of anæsthesia have been known, it is only recently that their relation with diseased states of the spinal cord has attracted notice.

For their transmission through the spinal cord to the brain the gray matter is the principal channel. But the question regarding the elements of the gray matter thus employed has not yet received a positive solution. Yet, it cannot be doubted, from late investigations, that this transmission takes place by both nerve-cells and nerve-fibres united together. Most of the nerve-fibres of the posterior roots of the spinal nerves, after having reached the gray matter, attach themselves to the nerve-cells. These cells communicate with others in such a way that two kinds of transmission are possible, the one across the cord, and another towards or from the brain. But besides these there are in the gray matter several collections of longitudinal nerve-fibres forming minute white columns surrounded by the gray substance. These white columns, first well described by Mr. Lockhart Clarke, and subsequently by Prof. Schrœder Van der Kolk, cannot be considered as the only channels in the gray matter for the transmission of sensation and volition, though it is probable they participate in it. It may be, as has been suggested, that they are employed for a peculiar kind of sensitive impressions, while the other impressions would be transmitted by nerve-cells and their communications. Further, the special portions of the gray matter appropriated to the conductors of each remain still undiscovered: and much of this, most unfortunately, is due to neglect in noticing the various kinds of sensibility in disease.

As symptoms of alterations in the spinal marrow, whether as the result of injury or of disease, lesions of sensibility play no unimportant part. Among these lesions may be enumerated morbid increase and diminution of the various kinds of sensibility; perversions, and errors as to the point of starting, of sensitive impressions; and the referring of sensitive impressions to the periphery.

The referring of impressions made on the sensitive nerve-fibres to their peripheral termination, as a symptom of disease of the spinal cord, is full of interest. It seems that most of these conductors possess normally no excitability at all in any part of their course,[3] save at their termination in the skin, with the exception of those of tickling and of pain. But, however this may be, it is of some importance to know that all of them may acquire in an especial degree, if not exclusively, under the influence of inflammation the power of being excitable and of giving sensitive impressions which are referred to the periphery. This change may take place in any part of their length. Thus a large portion of the skin[4] may be the seat of excruciating pain or of burning sensations; and yet the surface which, to the patient's idea, may be the seat of pain, may be altogether insensible. The general con-

1 Geo. Armstrong, Esq., B.A.
2 Sir Chas. Bell on the Hand.

1 Ueber die verrichtung des Rueckenmarksnerven, &c.
2 Physiology of the Nervous System.
3 Brown Séquard, Phys. and Path. of Central Nervous System.
4 Sir Charles Bell. The Nervous System.

clusion arrived at by the eminent American physiologist regarding peripheral sensations in spinal diseases is, that, whatever their kind, they are due to changes in the gray matter, the result of inflammation. He tells us further that they occur rarely, and never exist unless the posterior roots are irritated or the cord itself inflamed.

The gray matter in its normal state is not excitable.[1] For a part may be a conductor of sensitive impressions though not endowed with sensibility. As an example, the cerebral lobes are said to be conductors, but they are said not to be impressionable. So is the gray matter of the cord. When it exists alone, as after a transverse section of the white columns, it transmits to the brain the sensitive impressions made upon the parts behind the section: but when irritated, it does not transmit anything, because it is not itself impressionable. Still, though normally not excitable, it acquires the property of being excitable when inflammation has set in. It is then that the pressure of a fractured or dislocated bone acts upon this matter, causing the feeling of formication and pain of various kinds.

(To be continued.)

Correspondence.

CANNES AND LLANDUDNO AS WINTER RESORTS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having just read your notice of a letter in the *Times* signed James Nicol, M.D., comparing the climate of Cannes, in the South of France, with that of Llandudno, in North Wales, I beg to say I know both places well, and think there must be some mistake in the comparative tables given by Dr. Nicol.

In the month of August, 1866, I was staying on a visit at a friend's house at Penmanmawr, with several ladies and gentlemen from London. One day it was proposed we should make up a party to Llandudno. We were very delighted at the idea, and in half an hour the carriage—an open one—was announced to be ready. The son of our host drove us, and was well acquainted with the place we were going to; but to our utter astonishment, when we were getting into the carriage we found it half-filled with rugs, shawls, and cloaks, and, above all, the foot-warmer. Some laughed, some enquired if we were going to the North Pole; but we were treated as ignorant Londoners, who knew nothing, and were compelled to submit to the treatment prescribed; but much as we scorned all the warm wraps, as soon as we got to Llandudno we were only too glad to avail ourselves of the comforts our kind friends had provided. One of the gentlemen of our party, a medical man, was thankful to have a lady's shawl in addition to his great coat, he felt the cold so much. We stayed but a few hours, being almost perished.

Now, to compare such a place with Cannes as a winter resort I do not understand. I ask Dr. Nicol if oranges ripen in winter in North Wales? I have stayed four winters in Cannes, and have had ripe oranges gathered fresh every day from the trees. And when Dr. Nicol can produce this fruit to perfection at Llandudno, or any other place in England, then will I believe that our climate can be compared to Cannes for its warmth of temperature, and not till then.—I am, &c.

A CONSTANT READER.

COOKERY REFORM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—An article on "Cookery Reform" appeared last week, I believe, in your journal, being afterwards copied by several other papers, and, as there is a slight error in it which, to some degree, might injure my interests, I hope you will do me the favour of inserting the following rectification.

One of the paragraphs of the said article says:—

"The Norwegians have shown us the way to reform in this respect, and it has been introduced to the English public, especially with a view to the economy of fuel in the Abyssinian campaign, by Captain Warren, and under the auspices of the Society of Arts."

This must necessarily lead the reader to believe that Captain Warren's cookery stove, and my patent "Norwegian Self-acting Cooking Apparatus," both exhibited at the sametime at the Society of Arts, are one and the same thing. This is, however, not the case. As far as I know, Captain Warren has not taken the idea for constructing his very ingenious and most useful cooking stove from any Norwegian invention, and I should think that he, not less than myself, would wish to have it clearly understood that these two inventions, are in principle and construction entirely different.

Captain Warren's cooking stove is, if I am not mistaken, constructed on the principle of heating by steam generated in a boiler by means of a furnace attached to it. My apparatus, on the contrary, is provided with no furnace, nor any contrivance for producing steam pressure; it cooks away from the fire altogether, and is based on the principle of retaining the heat obtained by fire apart from it, just in the same way as a refrigerator is intended for keeping the heat *out*. Again, Captain Warren's apparatus is, throughout, made of iron; in mine the only part of metal is the saucepan or cooking vessel; his is, if I understand it rightly, more especially adapted for large establishments; mine is a thing for the million, for rich and poor, for the domestic kitchen as well as for persons away from home; it cooks and keeps the food hot just as well when carried about on a pack-saddle, on a cart, or in a fisherman's boat, as in a coal-pit or under the kitchen table.—I am, sir, very respectfully, your obedient servant,

JOHAN SÖRENSEN.

13, Duke-street, London, W.,
23rd Jan., 1868.

THE ELECTION OF CORONER FOR WEST MIDDLESEX.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Assuming that not only the medical profession but all right-thinking persons beyond it, are agreed as to the importance of a medical knowledge to the proper fulfilment of the important duties of coroner, I need say no more on that head; but I wish to give one little hint to those who are interesting themselves in the forthcoming election, and, indeed, to the candidates themselves. It is this, that while it is most desirable for a medical man to be elected, it is most unwise for a member of the profession who holds a deputy-coronership to put himself in nomination, as the medical element may not thereby be strengthened; for, although the deputy coroner may succeed to the vacant coronership, the vacancy which he leaves open may be filled by a legal candidate.—I am, sir, yours faithfully,

NON-MEDICUS.

MR. CONDY ON INFECTION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I see it announced that the lying-in wards of King's College Hospital, have been closed on account of the enormous mortality occasioned by epidemic puerperal fever, and have observed that this most fatal infectious disease has been also very prevalent in other institutions of the kind.

This state of things is, in my opinion, a serious blot on that branch of sanitary science, which relates to disinfection.

If we bear in mind, that in the spread of puerperal fever, whether from one lying-in woman to another, or from patients affected with other infectious diseases, such as erysipelas to puerperal subjects, there is always a local point of *invasion*, while in the former set of cases, there is also a local point of *evasion* of the poison, it must be obvious that few diseases present more favourable conditions for the arrest of infection. It would therefore seem to me that, if it be really necessary to close lying-in wards on account of the prevalence in them of epidemic puerperal fever, one of two things must be the case, namely—either 1. thorough measures of disinfection have not been employed; or, 2. we are not yet in possession of any real practical disinfectant.

But, my confidence, founded on long experiences, in the efficacy of disinfection when thoroughly enforced, is so great, that I cannot but think that in those hospitals in which great mortality has arisen from puerperal fever, disinfecting measures have not been properly applied.

Feeling satisfied that the power of thorough measures of disinfection to prevent the spread of puerperal fever is capable of being demonstrated in institutions wherein those measures can be faithfully carried out, I hereby declare myself willing to undertake the proof of this statement in any lying-in ward suffering from puerperal infection, provided the temporary sanitary management of such ward be placed under my direction.—I am, Sir, yours obediently,

H. B. CONDY.

Battersea, January 22, 1868.

1 Brown Séquard. Experimental Researches applied to Physiology and Pathology.

Gleanings.

RELATION OF HEAT TO MENTAL WORK—Experiments by Dr. J. S. LOMBARD, Assistant Professor of Physics in Harvard University.—The object of the first series of investigations was to study the temperature of the head, while sitting quietly by himself, with no special mental occupation. Under these circumstances, it was found that while the temperature of the head was in some instances quite steady, in others it was very variable, rising and falling, often with great rapidity. The variations were slight, not amounting, as a rule, to more than a hundredth of a degree of Centigrade ; but still they were very marked, if some other portion of the body was taken as a standard of comparison; thus the temperature of the leg or arm varied, if at all, within much narrower limits. What the exact cause of these irregularities was, could not be determined with certainty ; but the conclusion arrived at from a great many observations was, that this variability of temperature was connected with certain conditions of the mind. It was found that, in those cases in which the temperature was steady, the mind was, as a rule, in a more or less torpid state, such as persons are apt to fall into after a hearty meal ; while in the cases in which variability of temperature existed, the mental condition was one of much greater activity. The effect of a transition from the former to the latter condition was frequently shown, under the following circumstances :—It often happened, when the mind was in the state of inactivity mentioned, that one or more persons would enter the room in which the observer was seated, and a short conversation ensue. The subjects of conversation were of no particular interest, and required no reflection ; but nevertheless, in a few moments the temperature, which had previously been steady, would begin to vary, rising and falling, but with a general upward tendency. This change was not due to the muscular exertion of talking, for it manifested itself when the observer took no part in the conversation ; merely listening to the words of others, and saying nothing himself. Nor was it owing to any effect produced upon the circulation by modification of the action of the heart, for in this case other portions of the body would have been influenced likewise, whereas it was found that the head alone was affected, other parts situated full as favourably, if not more so, for feeling any such influence, exhibiting little or no change of temperature. Whatever the cause was, it certainly appeared to have its seat in the head.[1] Pursuing these experiments farther, it was found that *anything that aroused the attention* was capable of causing a greater or less rise of temperature on the part of the head, over and above that of the rest of the body. Various sights and sounds had this effect ; and, indeed, it could be produced in a great variety of ways. In the next place, the effect of the exercise of the higher reasoning powers was investigated. The results of these experiments were as follows :—*First.* Mental action of this sort caused a rise of temperature on the part of the head, which varied very much in different cases ; the highest rise noticed did not exceed the twentieth of a degree.[2] *Second.* The temperature of the extremities fell, sometimes only slightly, but at other times very decidedly—a half or a quarter of a degree of Centigrade, for example. This fall was doubtless owing, in part, to the absence of muscular exertion consequent upon sitting still ; but not entirely so, for mere immobility, without mental exertion, did not produce an equally great effect. A large number of observations were also made upon the effect of the reading of different literary productions. Provided the work did not particularly excite the interest or arouse the emotions of the reader, either no effect at all was produced, or else the temperature was slightly depressed. But with productions of an opposite description a very different result was obtained. In these cases the temperature was very speedily and visibly elevated. The most striking effects of all were produced by the reading aloud, or the recitation of poetry. The rise of temperature in this case was not due in any appreciable degree to the muscular exertion involved, for mere mechanical recitation produced no effect ; but the moment the interest of the speaker began to be awakened, the temperature rose. Although the action of the heart was frequently more or less modified, yet this could not account for the rise of temperature, inasmuch as other parts of the body ought, in such a case, to have shared equally in the rise, whereas it was the head that was chiefly, if not solely, affected. Reading or reciting to one's self gave similar results, and often even in a more marked degree.[1] The rise of temperature in this series of experiments was the highest noticed in all the observations given in this article ; a few minutes' recitation producing a greater effect than several hours of deep thought. In conclusion, I would say that, as regards the particular regions of the head in which the elevation of temperature was most marked, it was generally found that the best results were obtained just above the occipital protuberance. This statement applies to all the experiments that have been related. In the last-mentioned series of observations it was not unfrequently found that the temperature of the forehead *fell*, while that of the back of the head *rose ;* but for what reason I have not yet been able to determine.—*New York Medical Journal.*

TWO ATTACKS OF MEASLES WITHIN SIX WEEKS IN THE SAME PATIENT.—Dr. MINOT reported to the Boston Society for Medical Improvement the following case of this : A little boy, three years old, sickened December 21st. An eruption, supposed to be that of measles, appeared on the 25th. The diagnosis was, however, at first a little doubtful, as the eruption was complicated by urticaria for two days. After this time it had a perfectly normal appearance ; moreover, the child had the catarrh, and other general symptoms of measles. A companion who saw him early in the disease, was attacked with measles exactly a fortnight afterwards. A sister of the first patient, four years old, and a young lady visiting in the family, also caught the disease, at intervals of a few weeks, the symptoms and appearances in each being perfectly characteristic. On Feb. 3rd, after a few days' indisposition, the eruption reappeared on the first patient, and went through its course in the usual manner, being accompanied by the catarrh and other symptoms of measles. The interval between the two attacks was six weeks. Singularly enough, of the three individuals who caught the disease from this patient, two, the young lady and the little boy (her brother), had had the disease before.—*Boston Medical and Surgical Journal.*

Medical News.

ROYAL COLLEGE OF SURGEONS, LONDON.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 23rd inst :—

Messrs. Frederick William Wimberly, Donnington, Lincolnshire, of the Middlesex and Galway Hospitals; William Hodgson Pywell, Westminster-bridge-road, of Guy's; Richard Alfred Mowll, Liverpool, of Cork; William Henry Aston, Tupsley, Hereford, of St. Thomas's; Edward Henry Patton, M.D., Montreal, Quebec, of St. Thomas's; M'Gill and Laval; William Julius Mickle, M.D., Toronto, Gwelph, Canada, of St. Thomas's and Toronto; Richard Samuel, Llanelly, Carmarthen, of St. Bartholomew's; Bennet May, Birmingham, of the Birmingham School; William Henry Hubert, Markyate-street, Herts, of St. George's; Roderick Joseph Gilhooley, Dublin, of the Dublin School; Arthur Francis Greenhill, Barnes, of St. George's; Alfred Hollis, L.S.A., Yarmouth, Isle of Wight, of the Middlesex; Joseph Henry Moore, Scarborough, of the Hull School; William Douglas, Belfast, of Edinburgh; Eldred Noble Smith, Hertford, of St. Mary's; David Hamilton, M.D.Edin., Gloucester-street, N.W., of Edinburgh ; John Neville Colley Davies-Colley, M.A., Cantab., Whitefriars, Chester, of Guy's; Henry Horne Balles, Otago, New Zealand, of University College; and Ridley Thomas Hilder, Woking, Surrey, of Guy's.

It is stated that four candidates failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their studies for six months.

HUMAN ANATOMY AND PHYSIOLOGY.—The Professor of Anatomy commenced his Course of Lectures on Tuesday, January 28th, at 1 p.m., at the New Museums; they will be continued on Tuesdays, Thursdays, and Saturdays at the same hour. These Lectures are intended for students of natural science, and students preparing for the special examination for B.A., as well as for medical students. The Anatomical, Demonstrations will be continued by the Professor and Demonstrator of Anatomy on Mondays, Wednesdays, and Fridays, at 6 p.m., in the old Anatomical School, commencing on the 29th. The Demonstrations of minute anatomy will be continued by

1 It is almost needless to say that, in all these experiments, changes of position, or any other disturbing cause, were carefully avoided.

2 With delicate thermo-electric apparatus it is impossible to estimate accurately the thermometric values of the variations observed ; the most that can be done is to make an approximation.

1 The success of these experiments must depend, in a great measure upon individual peculiarity ; and with many persons they would doubtless fail. *Real emotion* must be awakened to produce the rise of temperature. Where this condition of the mind existed, out of more than a hundred observations, I have never known a failure.

the Professor on alternate Mondays at 7 p.m., in the old Anatomical Museum, commencing on Monday February 3rd, and the instruction in minute anatomy will also be continued by Mr. Gedge on Saturdays at 11 a.m.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—We have been requested to give notice that a quarterly meeting of the above Association will be held at the Ship Hotel, Charing-cross, on Friday, the 31st inst., at 7.30 P.M., when various subjects of interest to Poor-law Medical Officers will be brought forward for discussion. Among them the provision of medicines, &c., by the Guardians, under Section 69 of the Metropolitan Poor Act, 1867, the appointment of Dispensers to Workhouse Infirmaries, and special dietaries for all classes of inmates. Reference will also be made to the large amount of "desk" work imposed upon Medical Officers, and a remedy suggested. Important correspondence with the Poor-law Board, will also be laid before the meeting. Medical officers who have not yet joined the ranks of the Association, and all persons interested in the welfare of the sick poor and of the medical service, are invited to attend. We need scarcely urge those who have time to support by their presence this Association.

HEALTH OF THE NAVY.—The annual returns relating to the health of the navy present a favourable account for the financial year 1866-7. Notwithstanding the prevalence of epidemics on almost every station, the ratio of cases entered on the sick list (1264·8 per 1000 of force), of invaliding (28·7), and of mortality (10·4) were the lowest that have occurred in the 11 years embraced in the returns. The ratios for the ironclads were 1191·8, 23·8 and 4·5, the ratio of cases of sickness being slightly above that of the preceding year, owing to one or two of the vessels being newly commissioned, and consequently furnishing a number of trifling cases of disease. The highest ratio was in the gun vessels, which, from their light draught of water, are often employed near shore on foreign stations, and consequently in localities of a pestilential character. The ratio of mortality was highest in China. There was a great decrease in the death-rate on the West Coast of Africa as compared with the previous year. On the home station there were 155 deaths in a force averaging 23,080; Mediterranean, 35 in 5380; North America and West Indies, 69 in 5295; Brazil, 11 in 1215; Pacific, 21 in 2565; West Coast of Africa, 37 in 1635; East Indies and Cape, 23 in 1550; China 94 in 3515; Australia, 17 in 980; irregular force, 63 in 5060. The beneficial influence of the Contagious Diseases Act is beginning to be more or less felt at the various seaports; but the Act of 1864 was defective in some important points of detail, and the more efficient Act of 1866 did not come into operation until October of that year. To illustrate the effect of these measures in checking disease a table has been compiled showing, in regard to the head-quarters of the Royal Marine division at Plymouth, with a strength ranging between 1500 and 1800, the number of cases of primary syphilis treated in the Marine Infirmary or the Naval Hospital. In the last six months under the old law they were 130 per 1000 of mean force; in 1865 they were 105 per 1000 in the first six months, and 102 in the second; in 1866, 62 per 1000 and 60 per 1000; in the first six months of 1867 only 49 per 1000. Considering that the accommodation for carrying into effect the provisions of the Act have been much short of the necessities of the place, these returns speak strongly for the efficiency of the Act, and for the importance of largely extending the scope of legislation in this direction. Dr. Mackay expresses his earnest hope that the time is not far distant when every large city and seaport in the kingdom will be brought within the sphere of its operation.

M. F. GAVIN, M.D., L.R.C.S.I., Assistant-Oculist, City Hospital, has been appointed Assistant-Physician to out-patients, City Hospital, Boston, U.S.

NOTICES TO CORRESPONDENTS.

Contributions should be LEGIBLY written, on one side of the paper *only*.

Proofs ought in all cases to be corrected and returned without delay.

Proofs reaching authors on or before Friday morning, are expected to be returned to the Editor, at the office, before five P.M., on Friday afternoon.

Proofs reaching authors on Friday evening or Saturday morning *must* be returned to the office by two A.M. on Saturday, which is an early closing day.

Duplicate proofs are sent to authors, in order that they may correct and return one copy, and keep the other for private use.

Mr. HALL, St. John-street, E.C.—There are many different qualities of Court Plaster. A solution of isinglass with a little tincture of benzoin brushed over silk stretched on a frame, is the most common article. Transparent Court Plaster is made of oiled silk. The finest article is prepared on gold-beater's skin. The following useful formula is given by Dr. Paris:—"Gum benzoin ½ oz. rectified spirit 6 oz., dissolve. In a separate vessel dissolve 1 oz. of isinglass in as little water as possible. Strain each solution, mix them, decant the clear portion, and apply it warm with a camel-hair brush."

Dr. WEST, Gt. Malvern.—Friendly hints are at all times acceptable. We hope to publish shortly some further contributions on "Skin Diseases."

A. COX, Esq., Preston.—Merely specimens.

Dr. L. R.—Eminently satisfactory.

W. S. RUSSELL, Esq., Accrington, is thanked for the flattering compliment he paid to the conductors of the journal.

AN OLD SUBSCRIBER, Hoxton, will find his question answered in our last week's journal. Applications for the return of unsuccessful essays should be made to the person to whom they were addressed.

A WELL-WISHER.—If the certificate obtained in 1864, be one recognized by the General Medical Council, it will pass both the College of Surgeons and Apothecaries' Hall, otherwise it will be useless for these two latter bodies. Your question is rather obscure, or it would be answered more fully.

Dr. CAREY's interesting letter shall appear in our next.

Dr. BURSLEM.—The translation of the French Journal of Practical Medicine was discontinued in January, 1866, from some "hitch" in the copyright.

M. B.—Most satisfactory.

Mr. T.—The back volumes of the journal from 1851, are awaiting your messenger at our London office.

The following papers are unavoidably held over:—Anatomical Notes, by A. Macalister, L.R.C.S. Notes of a Case of a Tumour of the Neck, by J. S. Vessey, M.D. Phthisis Pulmonalis, by R. J. Kinkead, L.M.T.C.D., &c. Case of General Paralysis, by W. G. Smith, M.B., &c. Summary of Science, by C. H. Tichborne; and the continuation of the Foreign Medical Literature. The report of the Surgical Society Meeting, held on the 17th, has been received, and will appear in our next.

Communications with enclosures have been received from W. S. Russell, Esq., Accrington; W. A. Cox, Esq., Bath; Mr. P. Matthews, 77, Welbeck-street, W.; W. Jones, Esq., Kuabon; W. Hall, Esq., Clerkenwell; T. Greaves, Esq., Mount Bellew Bridge; J. R. Tuke, Esq., Brighton; D. David, Esq., Cowes; Dr. Harris, Brighton; J. Carter, Esq., Bedford; C. H. Collins, Esq., Chew Magna; G. C. Cockcroft, Esq., Hurworth; Dr. Leigh, Arnold, Notts; Dr. Edwards Crisp, Chelsea; W. Hunter, Esq., Aberdeen; Mr. Johnson, London; Dr. Burt, Ely-place, London; Mr. Turner, London; Dr. W. H. Furnival, Ebury Lodge; J. Chapman, Esq., Hounslow; Dr. Colbeck, Dover; Dr. Christopher Young, Tarm; A. G. H. Buckley, Esq., Sutton-on-Trent; Chas. Dawson, Esq., Pocklington; E. G. Clarke, Esq. Mold; W. M. Coultate, Esq., Burnley; Dr. Taylor, Newtown; Dr. Barrett, Macroom; Dr. Shiels, Cork; Dr. Sugrue, Killorglin; Dr. Keown, Belfast; Dr. O'Reilly, Kilkenny; Dr. McInytre, Coleraine; Dr. Sheriden, Oulart.

BOOKS, PAMPHLETS, &c., RECEIVED.

Obstetrics and the Diseases of Women and Children. By G. T. Elliot, A.M., M.D. New York: Appleton and Co.

Guy's Hospital Reports. Vol. XXI. London: John Churchill and Sons.

Die Optischen Fehler des Anges. By J. Z. Lawrence, F.R.C.S. Translated into German by Dr. August Karst, Kreuznach.

The Quarterly Journal of Psychological Medicine.

The New York Medical Journal. New York: Simpson and Co.

La Médicine Contemporaine.

The Alkaline Permanganates. By John Muter.

NOTICE TO ADVERTISERS.

The Medical Press and Circular

OFFERS UNUSUAL ADVANTAGES

FOR the Insertion of announcements from its extensive and largely increasing circulation in each of the three divisions of the United Kingdom and the Colonies. Being also supplied to the Hospital Libraries, &c., it will be found a most valuable medium for Advertisements of Books, Vacancies and Appointments, Sales, and Transfers of Practices, Surgical Instruments, Chemicals, and Trades generally.

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When advertisements are given for a series of insertions, a very considerable reduction from the above scale is made.

☞ Advertisements for Insertion in this Journal must be at the OFFICE, on SATURDAY, by THREE o'Clock.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 5, 1868.

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THE CANTOR LECTURES

AT

THE SOCIETY OF ARTS.

Dr. LETHEBY'S

FIRST LECTURE ON FOOD.

VARIETIES OF FOOD—THEIR CHEMICAL COMPOSITION AND NUTRITIVE VALUE.

(Continued from page 87.)

Maize or *Indian Corn* is one of the most extensively used grains in the world. It enters largely into the food of the inhabitants of America, Italy, Corsica, Spain, the south of France, and the Danubian Principalities. Since the famine in Ireland, it has there also become a common article of diet, especially when potatoes are dear; but its flavour is harsh and peculiar, and nothing but a scarcity of more agreeable food reconciles us to its use. The young grain called *cob*, is, however, more palatable, and forms, when boiled in milk, an American luxury, which takes the place of green peas.

The farina is peculiar when examined under the microscope, and will thus serve to recognise it.

Although the meal is rich in nitrogenous matter and fat, it does not make good bread. It is, therefore, either cooked by baking it into cakes, or by stirring it into boiling water, or boiling milk, as in the case of oatmeal, and thus making a sort of hasty-pudding, or thick porridge. This is the method of using it in Ireland, and it is flavoured with salt, or butter, or treacle. The favourite mess called *corn-lob* by the creoles of British Hinduras, is prepared with milk in the same way. Indian meal, mixed with maple sugar, and baked into cakes, formed, at one time, the chief article of diet of the almost extinct Delaware Indians.

When deprived of its gluten, and harsh flavour, by means of a weak solution of caustic soda, and then dried, it forms the expensive food called *Oswega* or *corn flour*, which is now largely used for puddings.

Lastly, it is often mixed with wheaten-flour and baked into bread, but its harsh taste is never completely covered.

The grain is said to cause disease when eaten for a long time, and without other meal—the symptoms being a scaly eruption upon the hands, great prostration of the vital powers, and death after a year or so with extreme emaciation. These effects have been frequently observed among the peasants of Italy, who use the meal as their chief food, but I am not aware of any such effects having been seen in Ireland, where it is often the only article of diet.

The nutritive power of Indian meal is very high, and, considering its price, it is almost, if not altogether, the cheapest food for the poor. Calculated according to the physiological wants of the system, a week's diet for an adult will only cost about 10½d., and excepting split-peas, which are of doubtful digestibility, there is nothing approaching it for economy.

Rice is the principal food of Eastern and southern nations. It is extensively cultivated in India, China, South America, and the southern countries of Europe; and it gives nourishment to not less than a hundred millions of persons. In this country, however, it is rarely employed, except as an adjunct to other foods. Now and then, in times of scarcity, it is used in the place of potatoes. Perhaps 50 per cent. of our labouring classes use it in this manner. It is imported into this country in a decorticated or cleaned condition, but when it has the husk upon it, it is called *paddy*. The kinds which are most esteemed in this country are Carolina and Patna; but according to Dr. Watson there are many Indian varieties which are nearly equal to the American. The proportion of gluten in it is only about 6·3 per cent., and it rarely exceeds 7. It is, in fact, one of the least nitrogenous of all the cereals, and cannot be made into bread, unless it is mixed with wheaten-flour, as is the custom in Paris, in making the best white bread. The proportion of nitrogenous to carbonaceous matter is as 1 to 12·7, or nearly twice the amount in wheat. It is, therefore a good adjunct to highly plastic foods, as ox-liver, poultry veal, and fish; with all of which it goes well, especially in the savoury form of *curry*. Boiled with milk also, and dressed with egg, as rice pudding, it forms a substantial meal; but in no country is it eaten alone.

The *Millets*, called also *Dhurra or Dhoora*, are another kind of grain, and are derived from many species of plants, as *sorghum*, *penicellaria*, *panicum*, &c. Like rice, they are extensively cultivated in India, Egypt, and the interior of Africa, where they are important articles of diet. They are a little more nutritious than rice: for they contain, on an average, about 9 per cent. of nitrogenous matter, with

74 of starch and sugar, 2·6 of fat, and 2·3 of mineral matter. We have no experience of their nutritive properties in this country, except in feeding birds; but in India the grains are ground whole and made into bread.

The last of the grains of any importance is *Quinoa*, a species of *chenopodium*. It is hardly known in this country, although it is extensively cultivated, and consumed on the high table-lands of Chili and Peru. Mr. Johnston has described it, and he says there are two varieties of it—the sweet and bitter—both of which grow at an elevation of 13,000 feet above the level of the sea, where barley and rye refuse to ripen. It is very nutritious, and approaches oatmeal in its chemical composition, the amount of gluten being about 19 per cent., the starch and sugar 60 per cent., and the fat 5.

The next class of farinaceous foods are the *pulses*, as *peas*, *beans*, and *lentils* of this country, and the *dholls* and *grains* of India. They are grown and eaten in all parts of the world, and are everywhere regarded as very nutritious when they can be digested. Nothing, however, but the most prolonged cooking will serve to help in this particular. As will be seen by reference to the tables, where the composition of peas, the type of all of them, is given, they are rich in nitrogenous matter, for peas and beans contain about 23 per cent., and lentils about 25; but the carbonaceous constituents amount to only 59 per cent., or 1 to 2½. They are therefore, when eaten, invariably associated with fat. In India, the favourite pea *(cajanus Indicus)* is rubbed with oil before it is cooked. In Yucatan, and throughout the whole of Central America, where black beans, called *frijoles*, are extensively used as food, they are well boiled in water, and eaten with pepper, salt, and pork. In this country, butter with peas, and fat bacon with beans, are inseparable companions. Lastly, revalenta or ground lentils with cocoa, which contains over 50 per cent. of fat, are mixed in a well-known fancy preparation. The nitrogenous matter of the pulses is not of the nature of gluten, but is more like casein, or the cheesy matter of milk, and it was named by Braconnot, its discoverer, *Legumine*.

Other farinaceous foods, of little importance to us, are the meal of the *edible chesnut*, which is largely used by the peasants of Lombardy; the *Manioc* and *Lotsa meal*, which, Dr. Livingstone says, are the chief vegetable foods of the natives of some parts of South Africa; perhaps, also, the *horse-chesnut* and the *acorn* might be added to the list, for there is hope of their being easily freed from the bitter principle which now renders them useless.

And lastly, of this class of foods are the *starches* and *arrow-roots*, which are so largely imported or prepared in this country. They are *Bermuda*, *Jamaica*, or *West Indian arrowroot*, from *maranta arundinacea*; *East Indian arrow-root*, from various species of *curcuma*; *Tous-les-mois*, from *canna*; *Brazilian arrow-root*, from *jatropha manihot*; which, when dried and partially cooked on hot plates, makes *tapioca*; and which, when baked in its whole condition, forms *cassava* bread; *sago* and *sago-meal*, from the fruit of various species of *sagus*; *Tahiti arrowroot*, from a *tacca*; *Portland arrowroot*, from the tubers of an *arum*; and *English arrowroot*, from *potatoes*. All these are obtained in the same way—namely, by crushing, or bruising, or rasping the root or other substance containing them, and after diffusing through water, allowing the starch or fæculoid matter to deposit; it is then collected on a cloth and dried. In this country, starches are obtained by soaking the grain in an alkaline liquor, which dissolves the gluten, and then crushing between mills, straining to keep back the husk and cellulose, and then washing with water, and allowing the starch to subside. By this method of manufacture a quantity of gluten is obtained, which can be set free from the alkali by an acid, and collected for food.

All the starches and arrows are known by their microscopic characters, and although they have the same chemical composition and nutritive value, yet they are very different in their digestibility, for the true arrowroots of the West Indies, as Bermuda and Jamaica, will often remain on the stomach of an invalid when the others will be rejected.

They contain no nitrogen, or but a trace of it, and therefore have no nitrogenous value, but they are useful for their carbonaceous properties; and they are best cooked by stirring them into boiling water or boiling milk, and then simmering for a minute or so.

The next class of vegetable foods are those which contain much water, and which may be called *succulent vegetable foods*, of which the *potato* is the most important.

Brought to us from America in the seventeenth century, as a rarity, by Sir Walter Raleigh, it has gradually become an almost universal article of diet; for its advantages are so numerous that it will ever be a favourite food. It is, for example, easily cultivated, easily kept, easily cooked, and easily digested; besides which it requires but little flavouring matter, and never wearies the palate. It is therefore used in times of plenty by all classes of persons, and is often eaten in quantities that approach very nearly to the rice allowance of a hungry Hindoo. In Ireland, says Dr. Edward Smith, when the season arrives and potatoes are plentiful, as much as 3½ lbs. are consumed three times in a day by an adult. This, indeed, is the regular allowance, and an Irishman finds no difficulty in consuming his rations of 10½ lbs. of potatoes daily. In England, the farm labourer consumes, on an average, hardly as much in a week. In Anglesea, however, potatoes are eaten twice a day, and the consumption is about 16½ lbs. per adult weekly; and in Scotland the average allowance is 15 lbs. per head weekly.

The nutritive value of the potato is not great, for, in the first place, it contains only about 25 per cent. of solid matter, and of this hardly 2·1 is nitrogenous. Potatoes are also deficient of fat, and therefore they require admixture with nourishing materials. They go well with meat and fish, and are considerably helped with a little dripping or butter; but the great adjunct is milk. In Ireland, potatoes and buttermilk are the principal diet, even in times of plenty.

Considering the cheapness of potatoes, they are a most economical food. At the price of a half-penny a pound, as is set down in table No. 4, it costs but two shillings and threepence a-week to provide the carbon and nitrogen required by an adult; but when potatoes are cultivated upon cottage ground, by wife and children, as is the practice almost everywhere, as much as seven pounds can be easily obtained for a penny, and then the weekly diet would be rather less than eightpence. At this price no vegetable food can compete with it.

Potatoes are best cooked in their skins, for the waste is then only about three per cent., or half an ounce in a pound; whereas, if they are peeled first, it is not less than 14 per cent., or from two to three ounces in a pound. The mealy varieties are more digestible than the close and waxy; in fact, when they are in this state, as is the case with new potatoes, and potatoes late in the season, which have begun to grow, they are best cooked by stewing them.

All succulent vegetables are endowed with anti-scorbutic powers, but potatoes are especially renowned for this property. As far back as the year 1781, Sir Gilbert Blane, in his work on the "Diseases of the Fleet," alluded to the beneficial action of the potato in scurvy, and from that time to the present, its salutary powers have been repeatedly observed. The late Dr. Baly remarked in his inquiries into the diseases of prisoners, that wherever potatoes were used, scurvy was unknown; and it is the almost universal practice now to carry potatoes, fresh or preserved, in all ocean-going vessels, with the view of preventing scurvy.

Other succulent vegetables in common use, as *turnips*, *parsnips*, *carrots*, *artichokes*, *onions*, *leeks*, *cauliflower*, *cabbages*, and *greens*, have, among themselves, nearly the same nutritive value, but they are all much less nutritious than the potato, as will be seen by reference to the Table No. 3; in fact, they do not contain more than from 9 to 17 per cent. of solid matter, and of this only about 1·2 is nitrogenous. They are chiefly valuable for their anti-

scorbutic properties, and for their quality of flavouring insipid food, and diluting strong ones.

Banana and *bread-fruit* are also valuable esculent foods, and are largely used in the tropics. The former contains about 27 per cent. of solid matter, of nearly the same nutritive value as rice. About 6½ lbs. of the fresh fruit, or 2 lbs. of the dry meal, with a quarter of a pound of salt meat or fish, is a common allowance for a labourer. The *bread-fruit* is largely eaten by the natives of the Indian Archipelago, and of the Islands of the South-Sea. There are several varieties of it which come into season at different times. It is very juicy, containing about 80 per cent. of water, and is generally gathered before it is ripe, when the starch is in a mealy condition, and has not undergone change into sugar. The fresh fruit is cooked, by peeling it, wrapping it in leaves, and baking it between hot stones. It then tastes like sweet bread ; but much of the ripe fruit is preserved, by peeling it, cutting it into slices, and packing it very closely in pits in the ground, made water-tight, and lined with banana leaves. After a while it undergoes a sort of fermentation, or, as we should call it from the smell, putrefaction, and the fruit settles into a mass of the consistence of soft cheese. When it is required for use, it is well kneaded, wrapped in leaves, and baked, like the fresh fruit, between hot stones.

Lastly, I may state that ripe fruits, as *apples*, *pears*, *peaches*, *pine-apples*, *oranges*, &c., are not of much nutritive value, for they rarely contain above 13 per cent. of solid matter, and this is of no more value than so much rice, but they have agreeable flavours, and serve the purpose of anti-scorbutic drinks.

Marine Algæ.—Everywhere along our coasts there is abundance of comparatively nutritious food, which may, by a little management, be made palatable. I allude to our *sea-weeds ;* and this Society has distinguished itself by its efforts to utilize this stock of now almost profitless food. Judging from the analysis of Dr. Davy, and Dr. Apjohn, of Dublin, it would seem that when in a moderately dry condition sea-weeds contain from 18 to 26 per cent. of water ; and that the nitrogenous constituents amount to from 9½ to 15 per cent., while the starchy matter and sugar average about 66 per cent. These results place sea-weed among the most nutritious of vegetable substances ; in fact they are richer in nitrogenous matter than oatmeal or Indian corn.

The varieties of sea-weed at present used are the following :—

Porphyra laciniata and *vulgaris*, called *laver* in England, *stoke* in Ireland, and *slouk* in Scotland.

Chondrus crispus, called *carrageen* or *Irish moss*, and also *pearl-moss.*

Laminaria digitata, known as *sea girdle* in England, *tangle* in Scotland, and *red-ware* in the Orkneys ; and *laminaria saccharina alaria esculenta* or *bladder-lock*, called also hen-ware and honey-ware by the Scotch.

Ulva latissima or *green laver.—Rhodomenia palmata*, or dulse of Scotland.—These, with many others, are eaten by the coast inhabitants of this country and the Continent. In some parts of Scotland and Ireland they form a considerable portion of the diet of the poor.

To prepare them for food, they should first be steeped in water to remove saline matter ; and in some cases a little carbonate of soda added to the water will remove the bitterness. They are then stewed in water or milk until they are tender and mucilaginous ; and they are best flavoured with pepper and vinegar. Under the name of *marine sauce*, the lavers were once a luxury in London.

As to the last of the vegetable foods—namely, the *fungi* or *mushrooms*—I have but little to say ; for although the edible varieties are highly nutritious, yet they can never become an important article of diet. Most of them are employed at the present time as flavouring agents ; and among these are the common mushroom for ketchup, the *morel* for gravies, and the truffle for turkeys and the livers of geese *(Pâté de foie gras)*.

Sugar and *Treacle.*—Both of these are very generally consumed on account of their flavouring and fattening qualities. Dr. Edward Smith found that 98 per cent. of indoor operatives partook of sugar—to the extent of 7½ ozs. per adult, weekly. 96 per cent. of Scotch labourers use it, and 80 per cent. of Irish. In Wales, also, it is commonly used to an average extent of 6 ozs. per adult weekly ; but there is a marked difference in the rate of consumption in the northern and southern portions of the country. In North Wales, for example, the average amount per head is 11¼ oz. ; whereas, in South Wales it is only 3 ozs. The principal use of it is to sweeten tea.

Treacle has more flavour than sugar, and it is also cheaper. It is, therefore, more largely employed ; and that description of it properly called *molasses*, which is the draining from the raw or unrefined sugar—treacle being the drainings from refined sugar, is preferred on account of its stronger flavour, and is most usually sold for treacle. They go well with all descriptions of farinaceous food, as porridge, pudding, dumpling and bread.

Sugar contains from 4 to 10 per cent. of moisture, and treacle about 23. The rest is carbonaceous matter, without nitrogen. They are, therefore, heat-producing and fattening agents, and their power. in these respects, is about the same as with starch. Whether they can produce disease when used in excess is a matter of doubt ; but Dr. Richardson declares that they cause blindness by creating opacity of the lens *(cataract).*

Animal Foods.—First on the list of these is *milk*, a liquid which contains all the elements of food required by the very young, and is, therefore, often regarded as the type or standard of food.

In some countries, as Switzerland, it is the chief diet of the peasantry ; and everywhere, if easily obtained, it is largely consumed. 76 per cent. of the labouring classes of England make use of it ; 83 per cent. take it as buttermilk ; and 53 per cent. as skimmed milk. In Wales, the average consumption of it by farm labourers is 4¼ pints per adult, weekly. South Wales averaging only 3 pints, while in North Wales it is 7½. In Scotland the consumption among the labouring classes is still larger, for it amounts to 6¼ pints per head weekly, and in Ireland it reaches 6¾ pints. Those who take least of it are the poor in-door operatives of London ; the weavers of Spitalfield, for example, use only about 7·6 oz. per head weekly, and those of Bethnal-Green only a fraction above 1½ ozs. per head. When examined under the microscope, milk is found to consist of myriads of little globules of butter floating in a clear liquid. On standing for a few hours the oily particles rise to the surface and form of cream, the proportion of which is the test of its quality. Milk is heavier than water in the proportion of from 1030 or 1032 to 1000. Asses milk is the lightest, for its gravity is only about 1019 ; then comes human milk, 1020 ; and, lastly, goat and ewes' milk, which is the heaviest of all, from 1035 to 1042.

The quality of milk varies with the breed of the cow, the nature of its food, and the time of milking, for afternoon milk is always richer than morning, and the last drawn than the first. Taking, however, the average of a large number of samples, it may be said that cows' milk contains 14 per cent. of solid matter, 4·1 of which are casein, 5·2 sugar, 3·9 butter, and 0·0 saline matter. The relations of the nitrogenous to the carbonaceous is 1 to 2·2 ; but as fat is 2½ times more powerful than starch, the relation may be said to be as 1 to 3·6.

When milk is heated to the boiling temperature, the casein is coagulated to some extent ; and if the milk has stood before it is heated, so that the cream may rise, the coagulum includes the cream, and makes the so-called Devonshire or *clotted cream.*

Acids also coagulate the casein, and produce a curd, as in the making of cheese and curds and whey.

Cream is rich in butter, as will be seen by reference to Table No. 3. It contains 34 per cent. of solid matter, 26·7 of which are butter, and its gravity is about 1013.

Skim-milk is the milk from which the cream has been

removed. It contains only about half as much butter as new milk, and its gravity is about 1037. In all other respects it is similar to new milk.

Buttermilk is the residue of the milk or cream from which the butter has been removed by churning. It is still poorer in fat than skim-milk, containing, in fact, only about half as much. Unless it is very fresh, it is generally a little acid, and frequently the acidity has gone so far as to set the milk into a kind of jelly.

The *whey* of milk is the opalescent liquor from which the curd has been removed in making cheese. Although not highly nutritious, it still holds a little casein in solution, as well as the sugar and saline matter of the milk. It is rarely used as food by the poor, but is given to pigs. In Switzerland, however, it is considered to have medicinal virtues, especially for the cure of chronic disorders of the abdominal organs, and the treatment, which is somewhat fashionable, goes by the name of *cure de petit lait.* There is a popular notion, also, that the whey of milk is sudorific, and hence we have our *wine whey, cream of tartar whey, alum whey, tamarand whey,* &c., when the milk has been curdled by these several substances.

Cheese is the coagulated product of milk, obtained by the addition of rennet or a little vinegar. When cream is coagulated it makes *cream cheese*, which will hardly bear keeping, but must be eaten fresh. It contains about half its weight of butter, and a fifth of its weight only of curd.

When cream is added to new milk, and the mixture is curdled, it forms very rich cheese, as *double Gloucester* and *Stilton.*

When new milk alone is used the cheese is less rich, but still of high quality, as *Cheddar.*

When an eighth or a tenth of the cream has been taken off, it produces the quality of cheese which is most sought after, as single Gloucester, Chester, American, &c.

And when all the cream has been removed, and the skim-milk is curdled, it forms the poor cheese of Holland, Friesland, Suffolk, Somersetshire, and South Wales.

At first every variety of cheese is soft and comparatively tasteless, but by keeping they undergo change, and develop their flavours, when they are said to be ripe.

Analyses of two of the most important of them are shown on Table No. 3, and it will be noticed that they contain from 56 to 64 per cent. of solid matter, about half of which is curd. In skim-milk cheese, the curd amounts to 44·8 per cent., and the fat to only 3·6 ; whereas, in Cheddar, the curd is only 28·4 per cent., and the fat 31·1. In nutritive power, therefore, especially in nitrogenous matter, cheese ranks high, and is a valuable article of diet ; but there is a limit to its digestibility, and hence it cannot be taken in large quantity. Considering its price also, it is hardly so profitable as many other foods ; although, where good skim-milk cheese can be purchased at from 2½d. to 3d. a pound it forms, in small quantities at a time, a good adjunct to bread.

(To be continued.)

LECTURES ON VENEREAL DISEASES

DELIVERED IN

DR. STEEVENS' HOSPITAL.

LECTURE I.

By ROBERT McDONNELL, M.D., F.R.S.,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

(Continued from page 89.)

B.—Is it true that the syphilitic sore cannot, as a rule, be inoculated on the bearer ?

Upon this subject the evidence of various experimentalists is tolerably clear.

Ricord says inoculation with the virus of a syphilitic sore upon a person who already bears upon him such a sore is either without result or it produces a sore *like* a simple chancre. This is, indeed, the foundation of Ricord's dogma, that a person can (as a rule) have syphilis only once.

In 1855, Clerc announced that it was not possible to reinoculate the syphilitic sore on the bearer.

In 1856, Henry Lee made experiments on the subject in the Lock Hospital, London, and concluded "that the indurated chancre was not capable of being inoculated upon a patient whose system was already syphilised, in the proper acceptation of the term."

Fournier inoculated 100 patients from their own syphilitic sores, but only twice produced sores like the parent sores. Puche, Poisson, Nadau, have arrived at a similar conclusion—viz., "that the indurated chancre is not autoinoculable more than twice out of 100 times."

Rollet and Laryoenne differ a little from this. They say, not more than 6 times out of 100.

From this testimony we may conclude that, as a rule, the syphilitic sore cannot be inoculated upon the bearer.

It is undisputed that the simple sore may be produced again and again.

C.—Is the syphilitic sore abortible, that is, can we cut short the progress of the disease, and prevent the occurrence of constitutional disease by cutting out the syphilitic sore, or destroying it by escharotics ?

In answer to this question, we have the following evidence :—

J. L. Petit, at the commencement of his practice, used to excise indurated chancres on the prepuce. He finally renounced this operation as one which was found ineffectual in preventing secondary syphilis.

Diday has not succeeded in preventing constitutional syphilis by the destruction of the chancre by chloride of zinc and other caustics, even as early as from three days to twenty-four hours after the sore became apparent.

Henry Lee's opinion on the subject is very decided. He says :—

"In the treatment of syphilitic infection cauterization is of no avail, as far as the prevention of constitutional symptoms is concerned.

"The period of incubation which has elapsed before the disease manifests itself forbids the idea that the poison can then be destroyed by the application of caustic to any particular part.

"Infecting sores that have been destroyed on the very day of their appearance have subsequently continued to spread, and have produced their natural consequence. Even if the infecting sore be cut out, the infection of the patient's system will not thereby be prevented."

The testimony brought before the Venereal Committee has induced them to conclude that "the application of local agents for the purpose of destroying the hard sore is useless."

Ricord practises cauterization at the first, but he admits that once the sore is recognisable by its hard base as a syphilitic chancre, the abortive method has no value. Follin justly observes that no conclusion can be drawn from destruction of a sore at a time when it cannot be determined whether it is a simple or a syphilitic venereal sore. If, after its destruction, the patient escapes without constitutional symptoms, it may be inferred that the sore was from the first non-infecting.

It appears, therefore, that after it is recognisable as a syphilitic sore, it is not abortible.

To excise it or cauterize it is only to lock the stable-door after the horse is stolen.

Among the causes which have involved the study of syphilis in doubt and darkness must be reckoned the tendency which it has to form hybrids with other maladies. In its later forms syphilis may be seen masked and modified by scrofula, rheumatism, scurvy, gout. We know that the vaccine virus and that of syphilis may be put into the soil together, the tares with the wheat, and it is probable that venereal poisons themselves may in like manner become mixed, and thus producing a compound infection give rise to complications of symptoms almost impossible to disentangle.

The "chancre mixte" of Rollet, is, indeed, supposed to arise from the compound virus of the simple and syphilitic sore: it does not, evidently, constitute a new disease, but it is important to recognise it, as it gives a satisfactory explanation of a number of apparently exceptional or contradictory facts.

Rollet, of Lyons, and his school, explain by the theory of the "mixed chancre," several phenomena otherwise out of the usual order, as we may say. Thus, a chancre, to all appearance a simple one, is followed by constitutional symptoms. Ah! they say, it was a mixed chancre, in the initial stage, the disease had the character of the simple sore.

A chancre, apparently altogether syphilitic, with hard base, is reinoculated on the bearer, as may occur four or five times in 100. They say it was a mixed chancre. The purely syphilitic part is not reinoculable, but of course the virus of the simple chancre is; and also suppurating bubo following a chancre, which is, to all appearance, a true syphilitic sore—is explained on the "mixed theory."

We must be slow to admit such an hypothesis without well-observed facts to support it; yet, we cannot deny the possibility, nay, the probability, of a compound infection from the co-existence of the two poisons, at the time of impure contact.

Another question of much interest connected with the subject of syphilis, is the unity or duality of the poison—in other words, whether the simple sore and the syphilitic sore arise from one virus, or are due to two distinct poisons. Ricord, theoretically, believes in the unity of the poisons, but I may say that, practically, he is a dualist, for he teaches that the simple chancre may be distinguished from the syphilitic one—that secondary accidents follow the latter only, and for it alone he reserves mercurial treatment. Clerc, Diday, Rollet, Guerin, Lancereaux, and other distinguished names, are found among those who believe that we have to do with two distinct poisons. For my own part, if you ask me to what conclusion I have come upon this subject, I shall answer you by an analogy. I should say that as in natural history, I am a follower of the distinguished Darwin, and believe that the wolf and the dog are probably descended from a common ancestor, although now regarded as a distinct species, so it is possible that the simple and the syphilitic sore may have had, in past times, a common origin, but that the lapse of years and circumstances which have not yet been determined have given to them certain distinct characteristics; so that like the dog and the wolf, the simple and the syphilitic sores may be regarded as specifically distinct.

In short, gentlemen, when we find that the usual characteristics of the syphilitic sore differ so from the *usual* characteristics of the simple sore, that

We see in the former—	*and*	*We see in the latter—*
Almost always a solitary sore;		Very often several sores at the same time;
A hard sore;		A soft sore;
Incubation of some weeks;		No incubation;
Adhesive inflammation;		Suppurative inflammation;
Incapability of inoculation upon the person who has the sore;		Capability of inoculating an indefinite number of times the person who has the sore;
Not to be destroyed by excision or caustics;		Able to be completely destroyed;
Constantly accompanied by indolent, hard bubo;		When accompanied by bubo, suppuration soon following;
Producing in due course secondary symptoms;		Purely local in its effects;
Influenced by so-called specific treatment.		Uninfluenced by specifics.

When we see all this, is it not hard to resist the conclusion that whether arising originally from a common source or not, we have now to do with two distinct morbid principles; that small-pox does not differ more from measles, the dog from the wolf—than the simple venereal sore does from the syphilitic.

You must remember, however, that there are many distinguished authorities, and we may especially mention Melchior Robert, and Langlebert, who still believe in the unity of the chancrous poison; they hold that the virus, the seed, is one and the same in all chancres; that the conditions of the soil make the difference. Their doctrine is, that if the seed falls on uncongenial soil, if the virus affects an individual whose peculiarity of constitution, state of health, or other circumstances, render him inapt for its development, it germinates and springs up, but to be blighted after a few weeks; it produces a local sore, perhaps a suppurating bubo, nothing more. But if it falls on a soil fit for its reception, it strikes root in the hard sore, and flourishes in due time to bear flower and fruit in the secondary and tertiary consequences.

In attempting impartially to decide upon this question of the unity or duality of the syphilitic poison, it appears to me that the evidence derived from the experiments of Wallace, Waller, and others, cannot be got over. Twenty-six times competent observers have been guilty of the outrage on humanity of inoculating healthy persons with syphilitic poison, (an outrage hardly to be justified, it is true, even by the gain to science); in every case where the poison *took* at all, a syphilitic chancre followed—with subsequent constitutional disease.

In twenty-six persons of different ages, sex, strength, constitution, &c., in Dublin, Prague, Lyons, Paris, Wurzburg, not one simple sore with suppurating bubo, and nothing else. Now, knowing what we do about the more usual occurrence of the simple sore, are we to conclude that by a remarkable coincidence, all of the persons infected chanced to be fertile syphilitic soils; or, are we to believe that a syphilitic sore in every virgin soil, produces its like, and that the simple sore is essentially distinct from it? This is our dilemma, and, in the present state of knowledge, I take the latter view.

Original Communications.

ON THE TREATMENT OF DISEASES OF THE SKIN.

By J. L. MILTON.

SURGEON TO ST JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

CHAPTER I.—PAPULÆ.

A. Strophulus—Definition.—An eruption of small, prominent, generally hard, papulæ, varying in colour from a vivid red to white, attended with some itching, and ending, after a few weeks, in branny desquamation, generally seated on the face, but may appear on the neck, arms, shoulders, back of hands, breast, and loins. Peculiarly a disorder of early infantile life. Divisions—1. S. intertinctus or red gum, in which the papulæ are red; 2. S. confertus, or rank red gum or tooth rash, in which the papulæ are paler, but more numerous; 3. S. volaticus, in which the papulæ are red, and grouped in small clusters of from three to ten or twelve; 4. S. albidus, in which the papulæ are hard, small, and whitish, with a red halo; and 5. S. candidus, in which they are white, without a halo.

Strophulus rarely requires active treatment. Sometimes the bowels are a good deal disturbed, there being griping, irregular purging, and symptoms of acidity. In such cases mild doses of antacids and aperients, for instance, a combination of soda and magnesia with a little mercury and chalk, will do good. To this some carminative, like dill water or cinnamon water, may be added. Strophulus is by no means necessarily connected with dentition, but if there be any irritation set up from this cause, it cannot too soon be removed by lancing the gums.

When the surface is dry or chapped, Mr. Wilson recommends the use of an ointment containing half a drachm of liquor plumbi to the ounce (the sparmaceti cerate or ointment of the London Pharmacopœia being both very good vehicles), or an ounce of oxide of zinc ointment, rubbed down with a drachm of spirit of camphor.

A lotion, containing half a drachm of borate of soda, and two drachms of glycerine in three ounces of elder flower waters, may be employed almost *ad libitum* during the day, and at night cold cream, or an ointment containing five minims of chloroform, half a drachm of glycerine, a scruple of calomel, and three drachms of lard, may be smeared on the part. If, however, these remedies are to do good, it is absolutely necessary that the materials employed should be pure, and this is only too often *not* the case. The stuff constantly sold as cold cream, prepared with bladder lard adulterated with lime and salt, is a very different thing from cold cream made by a first-class chemist. I have known two or three applications of what passed for zinc ointment remove the epidermis from the scrotum of a patient suffering under a tender state of that part, almost as effectually as a blister would have done, and yet the irritation of the surface thus denuded has been relieved by the use of the same ointment properly made. Mr. Wilson relates, that having been consulted by a surgeon, he ordered him zinc ointment which the surgeon procured from his own hospital. Mr. Wilson, anxious to know what a hospital's idea of zinc ointment might be, asked to see a specimen, and was favoured with a view of some stuff much more fitted for greasing cart wheels than for applying to the human skin.

This neglect is all the more unpardonable because very simple measures will ensure efficiency. Thoroughly purified lard should be used, and this can only be had by paying a higher price than usual, or by taking the trouble to melt down the flare and strain it through flannel ; the addition of ten grains of gum-benjamin to each ounce will prevent any rancidity. The pure gum or tears should be picked out, broken, and digested in warm lard for forty-eight hours. This mixture is afterwards strained, and then the active ingredient is added. For zinc ointment the oxide is used,[1] and Mr. Wilson prefers the buff-coloured oxide of the pharmacopœia to the white oxide made by combustion. I think, however, that anything to be used for the hands, head, or face cannot be too free from colour, and, as the white oxide can now be had very pure, I decidedly prefer it.

Some writers say ointments are barbarous,[2] and apt to become rancid. But a remedy which promotes the patient's comfort and the cure of the disease most certainly ought not to be called by such a name ; and when it is rancid, either there has been great neglect, or bad materials have been used. I appeal to the experience of the best authorities in these diseases, whether ointments do not agree better than any other applications whatever with many affections of the skin. It is well known that both Mr. Wilson and Mr. Startin have devoted the greatest care to this speciality, and they both employ ointments freely. But the reader has only to use them properly in order to satisfy himself that in eczema, and many other allied affections, they not only exert a most decided action over the disease, but that they form the most defence yet discovered against the irritation which the contact of air with the diseased surface is apt to set up, a point of vast importance in very raw or cold dry weather, preventing, Mr. Wilson thinks, the great oxygenation of the blood, which is apt to occur in inflamed surfaces when exposed to the atmosphere.

B. Lichen—Definition.—An eruption of small, hard, red, conical papules, not followed by ulceration, pustules, vesicles, or discharge, though one or more of these may complicate it in very severe cases, accompanied by heat, tingling, and often violent itching ; each papula becoming covered by a thin, small scale, or having the summit torn off by scratching. Divisions—1. L. simplex, where the eruption is moderately red and scattered over the surface of the body ; 2. L. urticatus, in which the pimples are large, often bear a suspicious resemblance to flea or bug bites, and, on scratching, look like spots of nettle rash ; seen almost exclusively in children and delicate women ; 3. L. tropicus, very small hard, rough papules, generally in clusters, attended with the most violent itching, and mostly seen either in the tropics or in persons who have resided there ; 4. L. planus, (Wilson), in which the papulæ are dull red, flattened, and glazed at the summit ; always associated with constitutional disorders ; 5. L. scrofulosorum (Hebra), in which the papulæ are the size of a millet seed, pale, yellowish, and red, scattered in smallish colours, covered with little scales, and not excoriated ; 6. L. lividus, the same as l. simplex, but the papules are of a purplish colour ; L. pilaris, in which the papules surround the hairs at their base. Both these divisions might, I think, very well be abolished, but Mr. Wilson and Mr. Startin retain them.

In simple lichen, especially when acute, it is not necessary to do more than keep the patient quiet, and give a febrifuge and brisk aperient. Citrate of potass or soda, taken effervescing every hour or two, acts very well in these cases, and now and then it may be requisite to give a mild sedative at bed-time, such as five grains of extract of poppy or lettuce, with a little opium ; or tincture of hyoscyamus, to be taken in camphor mixture, may be prescribed. So soon as convalescence is established, a grain or two of quinine dissolved in a little dilute sulphuric acid[1] can be given two or three times daily.

My business, however, lies principally with the chronic forms of lichen; and of these, lichen agrius and lichen urticatus are selected as typical divisions, the tropical form being very rarely seen in this country, and the forms mentioned by Hebra and Wilson having been very seldom seen even by them. The remedies, then, for these varieties of lichen may be arranged in the following order, and, provided the leading indications they afford be carefully looked to, the form in which they are given may be left to the taste and judgment of the surgeon.

These remedies are :

1. First a tonic, such as nitric acid, given in some bitter infusion, for two or three weeks. About fifteen minims in an ounce of infusion of quassia, or in a wine-glassful of water with a drachm of some tonic tincture, like calumbo or cinchona, may be taken three times a day, about half-an-hour before meals. When the patient is low and anæmic steel may be given in the form of citrate or tincture instead of nitric acid.[2] Whichever be given, an aperient should always be ordered at the same time.

It is advisable, in some cases, to examine the urine, and should oxalate of lime be found, nitro-muriatic in the same doses may be substituted for nitric acid.

2. Any particular disorder of the health, such as rheumatism, gout, or wasting, for instance, or of a function affecting the health, such as indigestion or inactivity of the liver, should be met by appropriate remedies, as, for instance, iodide of potassium and colchicum, cod-liver oil, afterwards mild doses of mercury, &c.; and I would most strongly recommend any such disturbance being thoroughly set right before the real curative treatment is begun with.

3. Lastly, in all refractory cases, a course of arsenic should be ordered, and as so very much depends upon the way in which it is given, I shall once for all venture to bring forward what I believe to be the conditions essential to success; for if arsenic is to do good, it must be used

1 Bell's formula for preparing the benzoated oxide of zinc ointment, as given in Mr. Wilson's work on Diseases of the Skin, is as follows:—

R. Adipis preparatæ ℥vj. Gum. Benzoin pulv. ℥j., liquefac cum leni calore per horas xxiv. in vaso clauso; dein cola per linteum, et. adde oxyd zinc purif ℥i. misce bene et per linteum exprime.

2 "Greasy applications under any circumstances are barbarous, and often injurious in the treatment of cutaneous disease."—Burgess.

1 The following formula will, I think, be found very useful:—

R. Quinæ disulphatis, gr. xii.
Acidi sulph. dil. ℥iss.
Tinct. cardam. c. ℥ss.
Aquæ cinnam. ad. ℥vi. ♏.
Coch. amp. i. ter quotidie sum.

2 The reader can try the subjoined formula:—

R. Ferri et quinæ cit. ℥i.
Ammon. sesquicarb ℥ij.
Spir. myristecæ ♏.
Syrup simpl. ℥ij.
Aq. ad. ℥vj. ♏.

A table-spoonful in a wine-glassful of water to be mixed with half an ounce of lemon-juice, and drunk effervescing three times a-day.

properly. By this I mean, that whether the plan of prescribing it in small doses at first, and gradually increasing them, or of beginning with large doses and decreasing them, be adopted, the plan, once decided upon, should be regularly and consistently carried out; and if any interruptions to it be thought requisite, they should only be made on really valid grounds, and be as systematic as the rules for taking the medicine. The surgeon may often suspend the use of arsenic with advantage; the suspension of it by the patient without orders can scarcely fail, sooner or later, to retard the cure. If the patient will give up arsenic whenever he is going out to see his friends, or when he has friends coming to see him; when he is away on business or on pleasure, both being, of course, potent reasons for neglecting treatment; when he is tired of medicine, or fancies it may not agree with him; in short, if he will take it in any way but the right way, he had better not take it at all. Properly employed, arsenic is quite as safe a medicine as mercury or antimony—if, indeed, it be not much safer; though some practitioners who give these freely enough, seem to regard arsenic with a special horror; but it is only safe, just as it is only useful, when given in this way.

Perhaps the plan so strongly pressed upon notice by Mr. Hunt, of giving full doses at first and gradually reducing them to such an amount as will maintain a decided action on the system, and of always giving the dose upon a full stomach, is the best; and certainly Mr. Hunt deserves the highest praise for the resolution with which he has sought to force upon the profession a recognition of the value of arsenic. At the same time, it cannot be denied that the opposite system, if carefully worked out, is perfectly safe. It is therefore, perhaps, of little moment which system is adopted, but it is of great moment that it should be steadily adhered to, and that a proper preparation of arsenic should be given.

De Valangin's solution is one of the best formulæ, but the surgeon must remember that there are now two preparations of this name: the original, twelve minims of which are equal to five of Fowler's solution, and that recommended in the British Pharmacopœia, which is of the same strength as Fowler's solution. Ten or twelve minims of the former, or four or five of the latter, may be given three times a-day, either with the food or directly after, but on no account on an empty stomach. If taken with the food it may be mixed with anything the patient is drinking, as tea, beer, wine, &c.; if taken after food, with a wineglassful of water.

I have no faith in arsenic in the shape of pills, or indeed in any solid form whatever. Besides, many persons cannot take pills, especially in great numbers, and they are not at all suited for children. The only remaining preparations of arsenic of which I have any great experience, are Fowler's solution and Donovan's. Till I tried the solution of the chloride of arsenic I thought Fowler's the best of all, and even now I would not undertake to prove that De Valangin's is better, though I believe it to be so. Should the reader prefer Fowler's solution, he will find it, despite the changes in opinion called into life by fashion, a most valuable remedy. But I would strongly recommend the omission of the compound spirit of lavender, the objection to which I pointed out years ago. The faint mawkish taste it gives to each dose is far more repulsive to many patients than anything either bitter or sour. I am glad to find that both Wilson and Hardy sanction the expulsion of such a nauseous and useless ingredient. Donovan's solution proved useless in my hands. I never saw any harm arise from using it, but it would seem that others have. Mr. Hunt says, "if there be one medicine more dangerous than another, it is the villanous compound of arsenic, iodine, and mercury, known by the name of Donovan's solution." I share in this view so far as to believe that it is undesirable to give either iodine or mercury along with arsenic; an occasional dose of either can do harm, especially if the arsenic be suspended, but while it is being taken the less its action is interfered with by such powerful medicines the better.

The dose and the mode of taking the arsenic having been decided upon, the next consideration is the length of time it requires to be taken, and respecting this, I believe there is but one opinion among those who have most carefully studied the subject, and that is, that it must be continued till the disease is thoroughly subdued, if not altogether cured. Mr. Hunt looks upon a pricking sensation in the conjunctiva as a sign that the curative action of the arsenic has been set up, and he considers that, if just enough of the mineral be given to keep up this action, we shall get all the good we can from the remedy with the least amount of disturbance. In some persons arsenic brings on a dirty brown staining of the skin, with desquamation, where it is hidden from light, and Mr. Hunt finds that a dose large enough to keep up this discolouration, and yet not large enough to make the conjunctiva tender, will ensure the curative action of the medicine just as effectually as the largest amount. I believe myself that one of the best guides we can have is the action of the bowels. When the arsenic is making the stools a little more fluid and frequent than usual, it is doing all it can do, and it is rarely necessary to make any change in the mode of administering it. I have repeatedly found that after a short course of three full doses daily, the daily use of five minims of Fowler's solution would cure the relics of an obstinate skin disease, and at the same time keep the bowels in perfect order; for arsenic, properly given, instead of exasperating, soothes an irritated state of the bowels.

With some persons, arsenic, in very small doses, will bring on nausea, irritability of the stomach, sickness, purging, and a general feeling of being very much out of sorts. Perhaps the best method of meeting these disagreeable symptoms is the following:—The arsenic is interrupted for one day, a mild pill is given the night previous, and a dose of magnesia in the morning; the patient may lie in bed, if practicable, during the early part of the day, and take only very light food, the arsenic is then resumed the day after, and taken the last thing before going to bed. If it still produce sickness and irritation, the dose must be reduced again, for there is always a point at which arsenic will do good, without inducing disorder of the health; in fact, the dose which just stops short of this is precisely the dose that effects the greatest amount of benefit. Some surgeons, in case of great sickness and irritation, add opium, hydrocyanic acid, &c., in order to diminish these, but my opinion is quite opposed to the practice. I have always found that arsenic answers best when its action is not masked.

I may here remark, that in many thousand cases of disease of the skin, I have never seen an instance of such remarkable intolerance of arsenic as Mr. Hunt speaks of. The smallest quantity I have known to disagree with a grown up person, was about two minims of Fowler's solution daily. I had under my care a woman suffering from erythema, who complained so much of disturbance in her head, and excitement, from the use of Valangin's solution in very small doses, that the quantity was gradually lowered to two minims a day, but in this instance, I had every reason to believe, that the patient was not very anxious to be cured.

Patients often get tired of the mere repetition of medicine, however well it may be agreeing with them, and then they or their friends propose giving it up for a little while, and trying change of air, &c.; I believe this to be, in almost every instance, a mistake, to which the surgeon should not yield: once a hold gained over the disease, it ought never to be relaxed; patients suffering under complaints for which arsenic is required, generally derive much less benefit from change of air than they expect, certainly far less than compensates for interrupting a course of arsenic, and having to go through the whole process again; and travelling, unless it can be continued for a very long time indeed, and under very favourable circumstances, will not cure a bad case of skin disease.

Mr. Wilson recommends[1] for the constitutional treatment of lichen, the mildest aperients, followed by bitters

1 Diseases of the Skin. Sixth Edition. P. 202.

and mineral acids, by chalybeates and quinine, or by quinine and iron. In chronic cases, he has much faith in arsenic. For lichen planus he gives the ferro-arsenical mixture. His local treatment consists of juniper tar soap, tepid bathing, emulsion of bitter almonds, with hydrocyanic acid, bichloride of mercury and spirit of wine, and lotions of carbolic acid. His great remedy for the itching, and one which he considers a most valuable agent in lichen urticatus, is a lotion of pyroligneus oil of juniper, and spirit of wine, an ounce of each in six ounces of water. In obstinate lichen circumscriptus, he recommends gentle friction with ointment of ammonio-chloride, or nitric oxide of mercury, or the ung. picis liquidæ. For lichen planus, lotion of the bichloride of mercury or the solution of the pentasulphide of calcium. Mr. Wilson thinks daily bathing of great value.

Mr. Startin bleeds for this affection. For the lichen sparsus of authors, he uses a lotion of bichloride of mercury and creosote water to allay the itching. In cases of lichen pilaris, accompanied by asthenic look and languid circulation, he prescribes the persulphate of iron in infusion of quassia, and ointment of white precipitate of mercury and levigated sulphur. For the feverishness of lichen agrius, he gives purgatives and diaphoretic diluents, with a very strictly regulated diet, after these a quarter of a grain of iodine, with twenty minims of liquor potassæ, and ten of colchicum wine, three times a day, with creosote ointment and a very free use of baths. He then gives calomel and opium at bed time, to which succeed bichloride of mercury, in doses of one-sixth of a grain, and lotions of bisulphuret and bichloride of mercury applied warm. Finally, come aperient chalybeates and lotions of borate of soda and glycerin. For the livid form (lichen lividus), Mr. Startin uses acid chalybeates, hot air baths, and sulphur fumigations. Lichen tropicus, which he considers to be the same complaint as pellagra, is not marked out by him as requiring any particular line of treatment.

Hospital Reports.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

Dr. FLEMING'S Surgical Clinique.

V.—HERNIA AND HYDROCELE—DISTRIBUTION OF TRUSSES.

SINCE the last report, isolated cases of hernia and hydrocele presented at hospital, some in out-patients, others in patients admitted into hospital for different diseases. Amongst them there was a case of "inguinal hernia" on the right side, accompanied with well-marked "encysted hydrocele of the cord" on the left side, in a healthy boy, aged 8 years. This boy had been wearing a truss from infancy for this hernia, which, from the account given, had been inguino-scrotal, and the usual truss mark was visible. The signs of the hernia had now disappeared; there was no "pointing," no bulging of the integuments at or near the internal ring in the erect posture, or no impulse communicated on coughing; in fact, the cure of the hernia had been accomplished, which Dr. Fleming remarked might be considered the rule in such class of cases at that early period of life. He recommended, however, that a light protective truss should yet be worn. With respect to the "hydrocele of the cord," he observed that it had peculiarities, to which he wished to direct attention. Its diagnostic features were clear, and each was commented upon. The translucency of the hydrocele was specially obvious—it was remarkably tense and defined in outline—the cord was most distinct above and below the tumour, and the testicle was equally distinct. Dr. Fleming did yet think that the tumour descended much lower into the scrotum than usual in such cases, and that it was very near the testicle, the latter organ, however, being as distinct in the most unequivocally marked "scrotal hernia." The tapping of the hydrocele was contemplated, and after two days' interval, the boy again presented himself at hospital for that purpose. Whether from previous rough manipulation in testing the several diagnostic marks of the tumour, or from some other cause, the aspect of the case was now so completely altered that non-interference, as regarded tapping, was deemed more prudent. The translucency of the tumour was unsatisfactory—its outline was no longer well-defined—and its size was decidedly influenced by compression, when it almost completely, as if solved down into a general fulness, which was accompanied with a peculiar rustling sensation, communicated to the fingers as they passed along the chord towards the internal ring. In fact, the impression on the mind of Dr. Fleming was, that either the "encysted" was converted into the "diffused hydrocele of the chord" or that symptoms of inguinal hernia were probably superinduced by some disarrangement of the vaginal or funicular portion of the chord. The occasional use of a local embrocation was directed, and a double truss was suggested as the most suitable expedient under the altered circumstances of the case, if they continued. The importance of attention to the varying features, which the more rare forms of hernia often presented, was hence inculcated.

A case of double femoral hernia in the male, was next brought under notice, and although each hernia was large and of long standing, no application had ever been made for a truss, or indeed for any advice respecting the nature of the tumours, until distressing dyspeptic symptoms occurred. One of these herniæ had tilted over Poupart's ligament—the other formed a somewhat oval tumour beneath the ligament. The requisite form of double truss suitable in such case was directed.

Another case of "inguinal hernia," which, in Dr. Fleming's opinion, strongly simulated femoral hernia, presented itself in a man, aged beyond 50 years, who had worn a badly-fitting truss for a lengthened period. In shape it resembled a femoral hernia: it did not protrude under Poupart's ligament, but rather through an abnormal splitting or separation of the fibres of that ligament, as it passed towards its insertion into the pubis, and so, did not pass through the external abdominal ring, but along the outside of the chord, into the scrotum. The body of the sac was spherical, and there was not the slightest disposition in it to ascend over Poupart's ligament, though the hernia was larger than an ordinary orange.

Dr. Fleming marked the importance of attention to those varieties in the direction and course of many cases of inguinal hernia. They merited careful investigation, in order not to prejudge too rapidly as to their absolute nature.

"Hydroceles of the hernial sac," were next alluded to. They were a very rare form of hernial complication. Dr. Fleming could only bring to his recollection two or three such cases since his appointment to the hospital, now more than fifteen years back, and the subjects of those cases were adults in early life, who had large scrotal herniæ of long standing, not fully reducible, and herniæ which were of that obscure and rare variety presenting in adult life, termed "congenital inguinal hernia."

The essential features of "hydroceles of the hernial sac," were detailed and illustrated by several drawings, special allusion having been made to a most instructive case which had lately been under observation in hospital, and which, having terminated fatally, afforded an opportunity of examining a most interesting pathological specimen exhibiting this special hydrocele. The details of this case were brought under the notice of the Pathological Society, and will be published in its proceedings.

Dr. Fleming stated that he was disposed to classify those "hydroceles of hernial sacs" as "vaginal hydroceles of the testicle" are classified — namely, into the acute and chronic forms, the acute, by no means rare of occurrence, as exemplified in the sacs of strangulated hernia; the chronic very rare, and then met with in those large scro-

tal herniæ so common amongst the working classes. To assist in the differential diagnosis of such cases, the immeasurable value of percussion was enforced and its effects were demonstrated on scrotal herniæ, and contrasted with the effects on ordinary hydroceles, with few restrictions, heretofore exemplified.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Cases under the care of Mr. PORTER.

I.—A LARGE INTRACTABLE INDOLENT ULCER OF THE LEG—AMPUTATION.

We are indebted to the courtesy of Mr. Porter for an opportunity of being present at an operation which he performed on Wednesday last. The patient, a man aged 42 years, had suffered from a very large ulcer of his right leg for four years. The diseased condition occupied two-thirds of the circumference of the limb, and extended upwards from the ankles to the junction of the middle and lower thirds. The sore constantly poured out a copious fetid discharge, and had baffled all attempts to heal it.

The operation was performed about a hand's-breadth below the knee. Mr. Porter rapidly drew the knife across the front of the limb from the edge of the tibia internally in a lunated direction, until the point of the instrument reached the posterior margin of the fibula, when he transfixed the leg and quickly cut his posterior flap from the calf. Then, having cleared the bones by carrying round the knife, and also passing it between the tibia and fibula, he cut the bones in a rounded manner with Butcher's saw. He then proceeded to secure the vessels by acupressure, but found this very difficult, owing to their having retracted considerably, and also from the oblique way in which they were cut. He applied ligatures to all but the peroneal, which had retracted so much that it caused a good deal of trouble and delay in the dressing of the stump. He succeeded, however, in arresting it by passing an acupressure needle deeply under it, and looping the artery over with wire. Finally, he brought the flaps together by means of wire sutures, and a very accurately fitting line of incision and well-formed stump resulted.

II.—A LARGE PHOSPHATIC CALCULUS IN THE BLADDER OF A FEMALE—LITHOTRITY.

A woman, aged 45 years, has just left the hospital cured of a large urinary calculus after four crushings. She had suffered for one year and nine months from frequent micturition, and at times dreadful pain in the region of her bladder. Her urine was constantly turbid, and occasionally bloody. She had been treated in the country for uterine disease before she came under Mr. Porter's care, and the stone had never been suspected until it was discovered by Dr. Evory Kennedy, who sent the case to the Meath Hospital. She was in other respects a healthy woman, and she had a very large urethra. On the 26th of December, Mr. Porter measured the stone with Sir H. Thompson's flat-bladed lithotrite, the diameter in which he caught it, was one inch and a quarter. He subsequently on four occasions, or *sittings*, crushed the calculus with the same instrument, and the debris amounting to 615 grains in weight were passed, with the exception of one large fragment which Mr. Porter extracted with the lithotrite. He injected the bladder at each operation, except the last. She left the hospital well on the 26th inst. Mr. Porter pointed out to the class the great advantages of lithotrity, stating that had he cut the stone out through her vagina, a fistula might have resulted; or if, on the other hand, he had dilated her urethra by mechanical means she might never again have been able properly to retain her urine. The operation by which he freed her of the stone, shattered it to fragments, it was washed out by the natural flow of urine, and left her in a sound condition. The sittings were almost painless, so that she never required chloroform, and she was only confined to bed for two days after each operation. During the entire management of the case Mr. Porter mentioned that he had freely given the patient opium, both by the mouth and also in the form of suppository.

The examination of the debris showed the calculus to consist of a mixture of triple phosphate, and phosphate of lime, but not in the proportions which yield the "fusible calculus." The nucleus was lithate.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL PRACTICE.

(Continued from page 92.)

In continuing our account of the year's surgical practice as related by Mr. Ring, we come next to diseases of the organs of motion. First, we are told of 136 cases of disease of bone and periosteum. In 42 of these there was necrosis. In one, the lower jaw and first cervical vertebra were both effected. There was hemiplegia. The boy improved under treatment by iodide of potassium and sarsaparilla. A trial was made of equal parts of sulphuric acid and water to dissolve dead bone, and the plan was in several cases successful.

There were 30 cases of caries and disease of the ends of joints. In three of them, the tarsus was affected, and in one the ankle-joint was implicated, and amputation of the leg performed. In four cases of caries of the bones of the foot, Syme's amputation through the ankle-joint was resorted to with good results. In one case of disease of the os calcis, Mr. Tatum removed the bone by means of a T-shaped incision on the outer side of the foot.

Diseased bone and scrofulous matter were, in two cases, removed with the gouge. In one of these the dorsalis pedis artery was divided; and so thickened were the tissues around it, that it was found impossible to command the vessel with a ligature; by acupressure, however, the bleeding was readily arrested. This patient had more bone removed at a subsequent operation, and was discharged with a useful foot.

Two cases of excision were performed—one of the shoulder, and one of the wrist, after Mr. Lister's method. In the first case, the right shoulder had become painful and swollen four months before admission, and abscesses had formed; the joint was much enlarged, and gave great pain, especially at night. On the inner side of the arm there was an open sinus. Dead bone could be felt with a probe. Excision of the head of the humerus was performed by means of a semilunar incision on the outer side of the joint: the glenoïd cavity was healthy. A good deal of fever followed the operation; but in three months recovery took place, with partial ankylosis; the wound was not quite healed when the patient was discharged. The excision of th wrist was performed for strumous disease, implicating all the bones of the carpus. Mr. Lister's method of operating was the one adopted. An incision was made on either side of the wrist, through which the whole of the carpus, with the carpal extremities of the metacarpus, radius, and ulna, was removed. None of the tendons, except those attached to the bones removed, were interfered with. The wounds were adjusted with silver sutures, and the limb was placed on a splint. For a few days the tendon of the extensor secundi intermedii pollicis was exposed, but it soon became covered with healthy granulations: passive motion was commenced on the third day after the operation. The wounds healed rapidly; the patient could soon move his fingers. He attended as out-patient for about a month afterwards.

Forty-two cases of *diseases of the spine* were admitted, of which five were lateral curvature, and the remainder angular.

In twelve of the cases of angular curvature, the disease

existed in some part of the dorsal region ; and in nine cases in the lumbar. The dorsal and lumbar vertebræ together were implicated in three instances. In one of these there was lateral curvature as well, with a distorted chest, &c., and the patient was discharged as incurable.

Eleven cases were complicated with psoas abscess, and two with lumbar ; whilst, in several instances, pain on percussing the spine, with or without abscess, was the only indication of the disease ; there being no perceptible inequality of the vertebræ. In six cases the abscess was opened, and in one it was allowed to burst. In two instances the abscess had burst, and was discharging when the patients were admitted. One patient was discharged at his own request, and one died of phthisis and amyloid disease.

In two instances, the cervical vertebræ were affected : in one there was paraplegia, in the other partial hemiplegia. The lower cervical and upper dorsal vertebræ were implicated in one case. A spinal apparatus was applied.

In one of the five cases of lateral curvature, there was some loss of power in the lower extremities, with inability to straighten them from contraction of the hamstring tendons : the left hand was also somewhat contracted : symptoms of phthisis supervened.

Four cases of *tumours* connected with bone were admitted. One was an exostosis of the femur, situated in the most usual place for these growths—the inner side of the lower end of the femur. It caused great inconvenience in walking, and was therefore removed. There were similar growths of smaller size on the fingers and opposite femur. The second was a myeloid tumour of the lower jaw. It had been growing for ten months, and had attained the size of a walnut. It was removed with bone forceps. The third was a case of considerable interest, inasmuch as there was some doubt as to its nature. A girl, aged 16, was admitted with the history, that four years ago she had been kicked in the left leg. A month after this, a swelling appeared at the spot where she was struck, and it increased gradually ever since. Blisters had been applied without effect. On the outer side of the left leg was a large fluctuating swelling, covered with discoloured skin ; its margin was defined by a rough, hard elevation, feeling like a ridge of bone. The swelling was tapped, and a small amount of purulent fluid drawn off. In about a month the abscess burst, and a large amount of foul pus escaped. A sinus was now left in the limb, which showed no disposition to heal. The patient's health remained good, and it was proposed at some future time to remove the mass, which could be felt to be attached to the fibula. In March, 1867, the tumour, with the portion of the fibula to which it was connected, was removed. The bone was hollowed out and expanded ; the tumour was found to consist of a soft, semi-gelatinous mass, which, under the microscope, was seen to consist mainly of oat-shaped cells, nucleated and nucleolated. The fourth was a case of malignant disease. Last year the mass attached to the scapula had been removed, the whole bone being dissected out, except the acromion process. When re-admitted, there was a large, tense, hard swelling filling up the whole of the right axilla. She complained of pain in the chest, and occasional shortness of breath. It continued to enlarge, and the patient was seized with dyspnœa several times, and died. An enormous mass of encephaloid disease was found in the axilla, with deposits of a similar nature in the lungs. A large abscess was found in the right pleural cavity ; the left contained air, and about a pint of clear fluid. The posterior part of the deltoid, the lower part of the trapezius, the serratus magnus, and the rhomboidei were completely wasted, the muscular substance being replaced by a dense fibrous membrane. The acromion process was somewhat depressed, and the head of the humerus rested against it and the acromial end of the clavicle. The arch was completed in front by the coracoid process and coraco-acromial ligament. The head of the humerus was surrounded by a dense capsule, and a perfect joint was thus formed.

Ten cases of *periostitis* came under notice. Two only were acute. In one of these the left leg had become painful and swollen without assignable cause. A free incision was made and pus evacuated. The patient left at his own request when the wound had nearly healed. The other case proved fatal from pyæmia. It occurred in a boy aged 16. He stated that six weeks previously he had had a blow on the right knee, but he took no notice of it. About five weeks after, he had pain in the chest, and on the day following, cramp and pain in the right knee. When admitted he was in a feverish state ; the knee was slightly red and swollen. Warm Goulard lotion and laudanum were applied. Two days after, he had vomiting; and on the following day the knee was swollen, and acutely tender and painful. The skin over the inner and front part of the knee and upper part of the leg was of a rose tint. Tongue coated and dry; respiration hurried; expression anxious; lower chain of inguinal glands enlarged, but not painful. Next day he was delirious. The superficial veins over lower part of the thigh were well-marked. He was ordered brandy and an effervescing saline, with an anodyne draught at night. The limb was enveloped in a linseed-meal poultice. This treatment was pursued for two more days, when fluctuation appeared over the tibia, and an incision was made down to the bone ; pus freely escaped, and the periosteum was found separated from the tibia. Symptoms of pyæmia now set in, and six days later he died.

Out of one hundred and forty-two cases of *disease of the joints* thirty-seven were cases of *synovitis*, for the most part chronic, the result of previous injury, except four, which were due to gonorrhœa, and three to rheumatism. One was a case of rheumatoid arthritis of the knee.

Seventeen cases of *abscess in joints* were admitted, affecting the shoulder, elbow, wrist, sacro-iliac, knee, and ankle-joints. In two instances the shoulder-joint was implicated. In both ankylosis resulted. In one of these the abscess was of large size, and was situated beneath the right pectoral muscles. It was opened, and a drainage-tube inserted. A great deal of fever followed, which reduced the patient to a very low state. The elbow-joint was implicated in three instances; in two of these death resulted from pyæmia. [They were included in the report on this disease in The Medical Press and Circular of Jan. 8th.] In three instances the sacro-iliac synchondrosis was affected. In one of these the abscess appeared over the joint itself; in the other it extended down the back of the left thigh to the popliteal space. In both cases the abscess was allowed to discharge itself spontaneously, and the sinuses healed. In the remaining case the abscess was situated in the groin, and did not heal. Abscess of the knee-joint occurred in seven cases ; in four of these amputation of the thigh was performed, two were attacked with phagedæna, and one died of pyæmia (also included in report above cited). In one instance excision was performed, the wound never quite healed, and the patient was readmitted, and died of albuminuria and amyloid disease. In one case the joint was much swollen, and the presence of pus was determined by means of a grooved needle. The patient was discharged at his own request.

Nineteen cases of *ankylosed joints* were admitted. A large proportion of these were admitted on account of the unfavourable position in which the joint had become fixed. A more useful position was in numerous instances obtained by force, employed under chloroform, or by the subcutaneous division of tendons. In one case of ankylosis of the elbow excision was performed. The result was unfavourable ; and amputation was peformed at a later date.

Disease of the hip presented forty-nine examples, amongst which are to be found instances of the disease at its earliest commencement and latest stages. The treatment adopted was the same as that thus summed up in a former report :—"The early cases are of especial interest in showing the admirable effect of rest-treatment. The plan usually adopted is to place the patient under chloroform, and carefully to adapt a well-padded long splint down the outer side of the thigh, making slight extension by means

of a perinæal strap. The effect of this is almost immediately to relieve pain ; and children who were admitted in a state of great febrile excitement, and suffering intense pain—so much so that they could not bear to be moved or lie in any position but that so characteristic of acute hip-joint disease—are found in the course of a day or two to be comparatively comfortable, with a cool skin and clean tongue, and suffering little or no pain. They are kept on their backs in this position till all appearance of mischief has subsided, and are then allowed to go about on crutches with a well-fitted leather splint. Another mode of applying extension was by means of a weight, attached to the foot by means of a string, which ran through a pulley at the foot of the bed" (St. George's Hos. Rep., vol. 2.)

Forty-nine cases of *disease of the bursæ* were admitted, and of these forty-three were of the bursa patellæ. In many of these suppuration had occurred, and an incision, with poultices, was required. In more numerous instances, however, rest and cold lotions averted the danger of the formation of pus. Chronic cases were treated by the application of blisters, or the tincture of iodine. In one case the bursa had solidified, and was removed.

Four cases of inflammation of the bursa over the olecranon were admitted. In one of them suppuration had occurred. One case is entered as an enlarged bursa in the ham. The swelling subsided under the influence of rest and a cold lotion.

The cases of *thecal abscess* were mostly confined to the flexors of the fingers or thumb. Early and free incisions, with the removal of any useless parts, constituted the local treatment. Three deaths occurred from pyæmia, whilst several were complicated with diffuse inflammation of the forearm, or inflamed absorbents.

Nineteen cases of *contracted tendons* occurred. These were for the most part treated by the subcutaneous division of the affected tendons, and the subsequent straightening of the foot by means of a Scarpa's shoe.

Two cases of *ganglion* in the popliteal space were treated by repeated blisterings and the occasional withdrawal of their contents by a fine trocar and canula. One patient was admitted with six toes on each foot. He found them an inconvenience in walking, and had one from each foot removed.

(To be continued.)

Reviews.

NUTRITION THE BASIS OF THE TREATMENT OF DISEASE : The Introductory Address at the Opening of the Medical Session of University College, London. October 1, 1867. By GRAILY HEWITT, M.D.Lond., F.R.C.P., &c. London. 1867.

THE following extract will give a fair sample of the nature and extent of the nutrition to which Dr. Hewitt refers. We quote from pp. 16 and 17:—

"It is not, however, simply in obviating the effects of acute disease that the remedial power of good nutrition possesses such forcible claims on our attention. Disease has a beginning. That prevention is better than cure is a maxim old as the hills. A very large number of deaths are due to diseases which originate in defective nutrition. Consumption, in its many forms and disguises, appears to be essentially connected with want of food. That there are other influences also concerned in the production of this class of diseases, it would not, perhaps, be altogether correct to deny, but it is very certain that the nutritive method of treatment has, under otherwise ordinary favourable circumstances, a most marvellous power in arresting its onward progress and, unless the disease has absolutely destroyed some considerable portion of a vital organ, in curing this fell disease. That the same plan of treatment applied at an earlier period would prevent its occurrence altogether is to be expected. During certain periods in the life of the individual the growth is excessively rapid ; in youth and childhood the framework of the body is incessantly increasing in size, not only so, but the changes in the tissues proceed with a vehemence and activity which are no longer witnessed when maturity has been reached. The remark might seem almost superfluous, that, to maintain this growth, food in large quantities will be required. It is not surprising to find that the most disastrous results follow whenever this fundamental principle is neglected. It is impossible to estimate, with any degree of accuracy, the number of deaths really due in this way to defective nutrition, for a vast number of them do not appear as such in the Registrar-General's Report ; the body does not always and at once succumb, but it is weakened, and its power of resistance diminished, and it falls an easy prey to one or other of the malign influences perpetually on the watch to attack it."

"THE BRITISH PHARMACOPŒIA, 1867," CONSIDERED. Being the Inaugural Address for the Thirteenth Session of the School of Medicine of the Catholic University of Ireland. By S. M. MACSWINEY, M.D., Dean of Medical Faculty, &c. Dublin. 1867.

DR. MACSWINEY'S lecture opens with a well-merited tribute to the public and private merits of the late Mr. Andrew Ellis, and, this done, he proceeds to offer criticisms on the new Pharmacopœia. Unlike most criticisms of that book, Dr. MacSwiney's is not only not abusive, but really gives a succinct and fair account of Pharmacopœias in general, and traces the legitimate descent of the present book, from the crude attempts of earlier times. He thinks (as we think) that the edition of 1867 is a considerable improvement on that of 1864 ; and he draws a very useful comparison between the new French Codex and the new British Pharmacopœia. This is a very useful kind of introductory lecture.

A LECTURE GIVEN AT THE MEATH HOSPITAL, ON THE OCCASION OF THE OPENING OF THE SESSION. November 4, 1867. By MAURICE HENRY COLLIS, M.D.Dub., F.R.C.S.I., Surgeon to the Hospital, &c. Dublin. 1867.

MR. COLLIS has struck out for himself a comparatively new and independent line in his Introductory Lecture, and instead of occupying an hour in giving advice which few are likely to follow, or in enunciating truisms, of which teachers and pupils are alike weary and impatient, he has undertaken a task of much usefulness, and has furnished us with a really interesting and well-written account of the Meath Hospital, which is now 115 years old, and which has had various changes of locality, fortune, and management, during that lengthened period.

If Medical Officers of other hospitals in Dublin, were to follow Mr. Collis's example, and give histories of their respective hospitals in their introductory lectures in 1868, we should at once have what is much wanted, a collection of historical records concerning the Dublin Hospitals, which could be afterwards revised and edited in one volume by some competent person. We have read Mr. Collis's lecture with much pleasure, and we can readily commend it to the notice and perusal of our readers.

HANDBOOK OF THE SPHYGMOGRAPH : Being a Guide to its Use in Clinical Research. To which is appended a Lecture delivered at the Royal College of Physicians on the 29th of March, 1867, on the Mode and Duration of the Contraction of the Heart in Health and Disease. By J. BURDON SANDERSON, M.D., F.R.S., Physician to the Hospital for Consumption, Assistant-Physician to Middlesex Hospital, and Joint Lecturer on Physiology in the Middlesex Hospital Medical College. London: Hardwicke. Pp. 83.

THE small book before us is the second English publication on the use of the sphygmograph which has appeared during the last two years ; a fact which speaks well for the activity of the cultivation of the graphical method of research, and, at the same time, indicates that the sphygmograph is gaining general recognition as an instrument of medical investigation. The precision which it gives in able hands to the study of the peculiarities of the pulse, the assistance which it promises to afford as an aid to prognosis, and as an indicator of the effects of remedies in fevers, render Marey's invention a very valuable addition to the resources of the physician. The use of the instrument requires, however, a certain amount of skill, and in order to obtain an accurate record of the pulse movements, no small care must be exercised in its adjustment. Wolff particularly dwells on these points, in his able work, and we can heartily recommend all readers of German to study the "Charakteristik des Arterien Pulses."

"The Handbook" has been written, as Dr. Sanderson tells

us. to help those using the sphygmograph "to overcome those preliminary difficulties which are apt to be encountered in the application of any new method of research." Of course a description of the instrument is given at length in the first chapter, and the familiar illustrations of Marey are to be found in the frontispiece. As our author recommends some modifications in the instrument, it is to be regretted that new woodcuts were not introduced, to assist the reader in comprehending the suggestions in the text. The japanned wings of Marey's instrument are recommended to be removed, in order to allow of the adjustment of a rectangular block of brass to the under surface of that end of the instrument which is placed near the wrist. By the under surface of this block, the sphygmograph "rests on the tendon of the *flexor longus pollicis*, and the space between that tendon and the spine of the radius." The forearm is supported and its movements controlled by the use of Mr. Berkeley Hill's pad, and the instrument is fixed by an elastic band which passes over the brass block referred to. The author's plan of varying the pressure is next described, and we quote it at length for the benefit of our readers, although we must confess that it is somewhat difficult to understand, as no diagrams (except those alluded to above) are given to assist the reader.

"Having found by experience, that it is not expedient to work with any less pressure on the artery than 100 grammes, and that the greatest distance between the wooden lever and the spring which the construction of the instrument admits of, is 11-20ths of an inch, it became my object to tighten the screw, P,[1] to such a degree that the force required to bend the spring back to the distance indicated should be equal to the weight of 100 grammes. For this purpose I fix the sphygmograph in a vice, and by means of a counterpoised loop of wire attached to the end of the beam of a balance, the opposite pan of which contains a weight of 100 grammes, exert the required pressure on the spring. This done, I turn the screw, P, until the upper surface of the spring is exactly 11-20ths of an inch from the lever. Having arrived at this point, the permanent adjustment is complete, and the screw must not be touched. I then place 300 grammes instead of 100 in the pan, and ascertain the distance between the surface of the spring and the lever under this increased pressure; and finally, by repeating the experiment with various weights, I determine the relation between distance and pressure with such accuracy, that by measuring the former the latter can always be known."

The first part of the second chapter is composed of an account of the "terms usually employed in describing the character of the pulse as felt at the wrist." And at the end of the chapter there is an attempt at a classification of the pulse, under the two heads of soft and hard pulses. The only pulse traces which the first three chapters contain are given in illustration of this classification.

The two sections in this chapter which treat of the "arterial movements which constitute the pulse," and the "practical application of results," subjects which it is essential the student should clearly understand, are, we regret to say, anything but clear.

The obscurity arises chiefly from the want of any previous definition of the technical terms employed. The terms "first event" and "second event," &c., are frequently used, and the reader has to turn to the lecture at the end of the volume before he can obtain any definite idea of the author's meaning. Dr. Sanderson has endeavoured to introduce new descriptive terms in speaking of the pulse, but in our opinion he has not succeeded in making the subject clearer by this change. On the contrary, he has introduced a source of some confusion, as the majority of those who apply the sphygmograph to clinical research will be certain to follow the modes of expression used in the standard works of Marey and Wolff. These authors, especially the former, describe the various curves of the pulse-trace, and speak of the ascending line, the summit, and the descending line of each pulsation. The descending line is usually marked by small undulations which are termed secondary waves or curves.

In this method the technical terms refer to a visible representation of the pulse movements, each one of which is, of course, associated in the mind with the idea of a corresponding movement in the artery. The standard being a visible and easily comprehensible one, the mind travels without difficulty from it to the pulse-movements, of which it is the representation. In Dr. Sanderson's method the student has first to fix in his mind the idea of the succession of movements which form each pulsation, and just as the impressions derived from touch are in this case, at best, much less vivid than those derivable from the graphical representation of that which can only be vaguely felt; so the technical language which refers purely to the movements of the artery must always be more difficult to realize, and more troublesome to learn, than that which relates to the pulse-trace.

In a work that aims at being "a grammar of the sphygmograph," to use the author's own phrase, we have a right to expect at least clearness of expression, and the materials necessary to enable the reader to understand the literature of the subject. Any who rely on Dr. Sanderson's "grammar" will, however, be disappointed in this expectation, as no reference is even made to the descriptive terms used by the inventor of the syhygmograph himself, and the very names of others whose writings should be consulted by all who use the instrument are not to be found in the pages of "The Handbook."

A careful definition of the author's own technicalities should, at all events, have been given, and an enumeration of the corresponding terms used by others; the work might then have proved an assistance, instead of a source of difficulty to the student of the literature of the graphical method.

The third chapter is entitled "Notes on Certain Causes and Complications of Disorders of the Circulation," and contains some useful and interesting observations. The remarks on the irregularity of the pulse in mitral disease are especially worthy of consideration, but we fancy our author makes a strange mistake when he says "the *irregularity* met with in mitral disease possesses a character not before noticed by writers, which affords a key both to its cause and the only mode of remedying it. In the irregular pulse of mitral regurgitation the contractions of the heart may be divided into two classes—those which are frequent, short and ineffectual, and those which are long and forcible; and it is found by observation that the former occur during inspiration, the latter during the respiratory pause." Marey, in his remarks on the pulse of mitral regurgitation, refers to this point in a note, and suggests the method in which future observation should be made to determine the exact relation between the respiratory act and the irregularity of the pulse. The rythmical character of the irregularity has, moreover, been long known to practical physicians. Dr. Sanderson must, however, have the credit of offering a very plausible explanation of the causes on which the irregularity depends.

The lecture, which forms the concluding part of the little book, is by far the best chapter in the volume. We need not analyse it here, as our readers are already acquainted with it. It has appeared at length in one of our weekly contemporaries, and in the abstract form in all the others. Had the same care been expended on the other chapters, the result would have been much more useful to the student and creditable to the author.

1 The screw P regulates the inclination of the spring, which presses on the artery, and so adjusts the pressure in the sphygmograph as generally used.

OLD ST. ANDREWS.—A Legend in Forddun's "Scotichronicon" tells us how a Greek monk named Regulus (Scotice, St. Rule), who dwelt at Patræ in Achaia, was warned in a vision one night, about the beginning of the fourth Christian century, to take certain portions of the skeleton of St. Andrew, of which he was custodian, and carry them away to the utmost limit of the western world. Putting the arm, three finger-joints, a tooth, and a knee-cap of the dead apostle into a coffer, he committed himself, in company with some followers, to the sea, and, after much suffering and peril from Mediterranean and Atlantic billows, was wrecked with his treasure almost at the very spot where the Thistle as just recorded went to pieces. The saint and the box were both saved; and the king of the Picts, extending his protection to the guardians of a trust so sacred, conferred upon the strangers the Boar forest, which then occupied the rocky promontory on which the city of St. Andrews now stands, and built for them a church, whose tall square steeple, formed of a masonry that seemed to bid defiance to time and weather, still rises from the graveyard of the ruined Cathedral. This religious settlement at first bore the name Kilrule, but the presence of St. Andrew's bones induced later residents to call it by the name of the apostle who became patron saint of Scotland. The Culdee monastery of the Kirkheugh, which arose, after the days of St. Columbia, on the seaward angle of the hill that overlooks the harbour of St. Andrews, became in time the nucleus of a Roman bishopric, the third in order of foundation on

Scottish soil. But more than all other events that contributed to make St. Andrews the ecclesiastical capital of mediæval Scotland, was the institution there in 1144 of a house of Augustine Friars, whose prior was entitled to wear the ring, mitre, and crozier of a bishop, and to take a place in Parliament above all other prelates of the clergy.—*Marjorie Dudingstone, a Tale of Old St. Andrews.*

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 5, 1868.

PROFESSIONAL EDUCATION.

Of all the subjects that are continually cropping up and *obtaining* ephemeral attention, no one is more important than that of medical education. Yet its unsatisfactory condition remains year after year the bugbear and annoyance alike of teachers and pupils, and the unredressed evil that does more than anything besides to keep the Profession under the thrall of the "Old men of the mountain" it has erected in the corporations, beneath the weight of which we groan. Nevertheless, there is too much disposition to shelve the question. Often have we, as journalists, been told that we do not keep the subject as much in the foreground as we might; but what are we to do? All our volumes, and those of our contemporaries too, prove that medical editors are more ready to discuss education than those whose duty it is to adopt decided action, and for a long time the dead weight of the corporate bodies has produced apathy amongst those to whom the journals look for aid.

In 1858, the Medical Council came into being, armed with authority to grapple with the question. Every year it has met—and talked—and talked. It has done—literally nothing; and here we are, in 1868, no nearer, apparently, to a better system than we were when this corporation was created out of the heterogeneous materials of the older corporations. We have called it before the *corporation of the corporations,* and that phrase well describes its constitution and its weakness. Until we have reformed it we can hope for little.

It is strange, but alas! true, that the metropolis should still be the centre where this evil is most apparent. A conviction of this gave rise to the Medical Teachers' Association in London, from which good things have been hoped, but which will accomplish nothing unless it gets out of the old ruts in which it seems disposed to run.

There was something positively melancholy in a society of gentlemen so influential devoting an evening to the suggestion of various plans to secure an audience to authorized teachers, and this, too, after Mr. SIMON, as president, had delivered an address full of thought, that might have stirred them to something better.

We hear so much of schemes to compel pupils to put in an appearance at the lecture rooms, that it might well be imagined that medical students of the present day exercised all their ingenuity in baffling deans and consuming their days in pot-houses or billiard rooms. But is this so? Are the students all lazy? Are the majority of them incorrigible? Do they regard lectures as a veteran might morning drill? and, if so, is it not possible that authorities and teachers have been playing the martinet with too high a hand? Let us be just, and let lecturers honestly ask themselves if *all* the fault is *always* on the side of the listeners.

Mr. SIMON treated the subject from a very rational point of view. First, he glanced at the examining boards, and the picture he drew of the Royal College of Surgeons of England was as faithful as it is shameful. With him we call on all to think for a moment—"What the Council might have done in the last 25 years, if it had administered its great trust disinterestedly." The utter selfishness of this body, its carelessness of everything but the securing of its own perquisites, the grand position the College might have held, the depth to which it has fallen, are too well known to need a word more. Authority, wealth, influence—it has had all—and what has it done to promote medical science? What has it done to improve medical education, which it has virtually controlled? Echo answers—What? Nor can the London College of Physicians expect anything but censure. It is poor, say its apologists! It may be that it has been poor in cash, but it has been rich in influence and authority. The veneration of age has settled upon it, the traditions of the wise and good should have saved it from the long slumber from which it is now being galvanised. It has had opportunities which will not soon recur, of controlling the whole profession in England, and has meanly squandered them. Its prestige alone, a century ago, would have sufficed to place medical education on a firm and broad basis, upon which we might now have been building. It might have been the great medical university of the United Kingdom, and—it would not. It doffed its gowns, prated dog latin about the dignity of the physician, and handed over the profession to the management of the Apothecaries' Guild. In thus abdicating its functions, it perhaps did well after all; for the Worshipful Company has discharged its duty far better than the poor but proud College.

The Apothecaries' Company has done more to raise the status of medical men, and improve medical education, than all the other English corporations put together. Honour to whom honour is due, and in reference to professional education, there are not two opinions amongst those who have watched its development during the last quarter of a century. If the General Medical Council would evince as much earnestness as the Apothecaries' Society has done to fulfil its duty, we should soon have a reform.

We have dwelt longer than we intended upon this branch of the subject, as we are desirous of recording our conviction that Mr. SIMON only expressed a general feeling when he proceeded to the next and objected to the mass of *Regulations* under which the work of education is conducted. Mr. SIMON would abolish all the petty restrictions that cramp teachers and pupils, and serve no good end. He said, "If I could assume the thorough efficiency and disinterestedness of our examining Boards, I would be well satis-

fied to look to the stringency of the examination as a substitute for all regulations whatever, and would admit to be examined with a view to registration, anyone who had arrived at the age for undertaking civil responsibilities."

Why should we doubt the possibility of such a fair and impartial board being constituted? The University of London has always held this reputation, and no one anticipates anything but fair play from the examiners of the Apothecaries' Society. These boards are independent of the influences which destroy confidence in our Royal Colleges, and they are consequently more trusted.

Licensing bodies ought not to have incompatible functions. If we are to have a multiplicity of examining boards, and there seems little hope of sweeping any of them away, at least, let their examinations not be such transparent shams as to necessitate the issue of a complex code of regulations to prove the candidate has had the opportunity of learning. Test his knowledge, not his means of study. Who does not know that the ablest teacher may waste his energy on inattentive students, whose schedules must be signed, as they are present, in body, at the lecture, though they may be far away in mind; while a diligent student, with only small opportunities, will take the highest place in the class-list of the college, and carry off the honours at the University? We trust then that Mr. SIMON'S words will not pass away unheeded; but they will, unless the profession will speak out and rouse the General Council from its slumber. A radical reform is needed. The present method of education is everywhere pronounced unsatisfactory. Everyone complains that the tree, so carefully tended, pruned, and watered, brings forth no fruit, but no one proposes to hew it down. The time is, however, surely coming for sterner measures. For our part, we proclaim that the axe is ready. Mr. SIMON has taken it up, and looked at it, and even whetted it, but laid it down again. We speak out its use, and call upon some sturdy woodman to lay stroke to stroke till the tree falls.

THE CONTAGIOUS DISEASES' ACT.

IT requires a good deal of courage for the general press to venture on a discussion respecting the prevalence of venereal disease, or the utility of the Act of 1866. Yet we may be sure that so long as discussion is confined to medical journals it will not result in action. It was, therefore, with considerable satisfaction that we read Dr. POLLOCK'S letter in the *Times* last November, and prepared some criticisms upon it, for which, however, we were unable at the time to find space. This was the less to be regretted since the letter in question was a model of good taste. It is at all times a ticklish thing for a medical man to append his name to a communication to the non-professional press. How much more on a subject like this? Dr. POLLOCK, therefore, deserves the warmest compliments for the manner in which he carried out his praiseworthy intention. We are led to revert to this by an appeal made last Friday in the same paper. It is Mr. SKEY who now comes forward, and, if we are not prepared to endorse all he says, we may hope that the subject will receive the attention it deserves. It is pretty well-known that we are not ready to adopt all the squeamish notions of some medical journalists, who are in many things more prudish than is good for professional ethics. We may, therefore, safely leave in their hands the ungrateful task of pointing out the blots in Mr. SKEY'S manner of making his appeal, and devote our own attention to the subject itself. We have before had occasion to speak of Mr. SKEY'S literary performances, and no one will deny that we have done this fearlessly enough. What, then, does he ask in his letter, which we earnestly wish had been half the length? He appeals to the nation on behalf of fallen women, and seems to desire to found an agency more extensive than the association for extending the operation of the Contagious Diseases' Act. That association pleads to the world for hospitals. Mr. SKEY is a member, and an earnest one, of it; but he raises his voice for something more. He pleads for reformatories. So far, we would give him every aid; but he does not stop here. While the association calls for subscriptions, Mr. SKEY makes his "appeal to the funds of the nation." He declares that "justice precedes both private charity and national honour," and as a sort of corollary, of which, however, we scarcely see the necessity, goes on to express his desire "to enlist the sympathy of those who command the exchequer of Great Britain, to obtain for every such victim the option of reformation and of a home, of a pure, moral, and religious atmosphere."

Now, here we pause in doubt whether Mr. SKEY'S idea of the magnitude of the evil has not carried him beyond the bounds of prudence.

The remedy he proposes, if we correctly understand him, should take the form, not only of public acknowledgment, but involves a call on the national purse. Now, here he unites against himself forces of the most dissimilar kind, which are sure to weigh him down. The dreadful people whose political economy would be outraged, the kindly but uninformed, who will not learn, because they think that virtue consists in averting the eye from vice; the bigoted set whose prejudices will be shocked by such proposals to recognize the claims of the outcast; the Pharisees who would not be seen to touch what they consider defiled; the Levites who would pass by on the other side. These, and more than these, will unite to defend the exchequer of Great Britain from Mr. SKEY'S attack, and leave the evil unredressed.

For this reason we think he would have done better to limit his appeal, too, to private contributions, for the toil spent in organising a plan to carry out the view he has propounded would suffice to direct a by no means insignificant stream of British benevolence into the channel where we confess it is so much needed.

Notes on Current Topics.

The Public Health.

IN the fourth week of the year the annual rate of mortality in the large towns was 27 per 1000. In London the rate was only 23, in Edinburgh it was 31, in Dublin 37, in Bristol 27, in Birmingham 24, in Liverpool 32, in Manchester 38, in Salford 28, in Sheffield 26, in Bradford 31, in Leeds 23, in Hull 23, in Newcastle 27, in Glasgow 31. There were 1395 deaths registered in London. This is 321 below the average number of this week, corrected for increase of population. The health of London, therefore, continues very good. The deaths from zymotic diseases were much below the average, being 249 instead of 348. There were 21 deaths from small-pox, 42 from measles, 22 from scarlatina, 5 from diphtheria, 52 from whooping-cough, 31 from fever, 13 from diarrhœa. Of chest diseases

we note 157 deaths from phthisis, 206 from bronchitis, 89 from pneumonia, 66 from disease of the heart. The mortality, relatively low in all divisions, was only 22 in West London.

How to Stamp Out Disease.

We have stamped out the rinderpest. Can we do a similar thing in the diseases that afflict mankind? The uncomfortable sounding suggestion is not ours, but Sir J. Simpson's. That author has just reprinted, as a pamphlet, his "Proposal to stamp out Small-pox and other Contagious Diseases." He tells us that *isolation* will accomplish in small-pox what the pole-axe did for the cattle-plague, and urges the question as one for strict legislative measures. The regulations he proposes comprise—1. The earliest possible notification of the disease after it has broken out. 2. The seclusion of those attacked, at home or in hospital, until all power of infection is passed. 3. Surrounding the sick with nurses and attendants who are known to be protected. 4. Purification of the rooms, clothes, and persons of the sick, and those about them by disinfectants.

By such means as these Sir James Simpson believes we might rid the community not only of small-pox but of other contagious diseases. There are many who will be glad to read and distribute the pamphlet which is published by Messrs. Edmonston and Douglas, of Edinburgh.

The Adulteration of Food and Drugs.

A bill on this subject has been prepared by Mr. Postgate, F.R.C.S., of Birmingham, and placed in the hands of Mr. George Dixon, M.P., to be introduced into Parliament next session. It is entitled "A Bill to amend an Act for Preventing the Adulteration of Food or Drink, 6th August, 1860, 23rd and 24th Vict., cap. 84, and to Prevent the Adulteration of Drugs." The second refers to persons selling adulterated articles. It increases the penalty to £50, and drugs are included with food and drink. The third clause substitutes "shall" for "may," appoint, in Clause 2 of the present act, thereby giving further powers to local authorities, and rendering the appointment of analysts compulsory. The existing act is merely permissive. Clause 6 provides that the analysts shall report quarterly to the local authorities appointing them, the number of articles examined, specifying the nature and kind of adulterations detected. All such reports to be read publicly at the meetings of the local authorities appointing the analyst. Clause 8 provides that any purchaser shall on payment of not more than 5s. be entitled to have any article analysed by the public analyst and receive a certificate of the result of the analysis specifying whether in the opinion of the examiner the article is adulterated, and whether if it be an article of food or drink, it is so adulterated as to be injurious to the health of persons eating or drinking it; such certificate, in the absence of contrary evidence, to be sufficient testimony before a justice, or in any court of justice, of the matters therein certified, and the sum so directed to be paid for the certificate, to be deemed part of the costs. By Clause 9, analysts or inspectors are to report the prevalence of adulterations in food and drink, and drugs, in manufactories in their districts, the objectionable goods to be seized by order of a magistrate. The other provisions of the present act are to remain in force, but drugs are to be included as well as food and drink.

The Medical Club.

The Committee have announced the removal of the club, on the 25th March next, from their present temporary rooms to more central and convenient premises, No. 9, Spring Gardens, S.W.

The new club house is a handsome building, recently erected, and overlooking Trafalgar-square; it will admit of considerable increase in the amount of sleeping accommodation, both as regards the number and size of the bedrooms. In addition to the reading-room and coffee-room, there will be a billiard-room, private dining-room, lavatory, and dressing-room, &c.

The entrance fee for members joining until June 30th is eight guineas, and the annual subscription for those residing in London, four guineas; those resident elsewhere, two guineas. After June 30th, the entrance will be fifteen guineas, and the annual subscription six guineas and three guineas.

Poor-law Doctors.

We beg to direct the attention of our readers to the report, which appears in another column, of the quarterly meeting of the Metropolitan Poor-law Medical Officers' Association, held on the 31st ult. From this, it would appear that we, in common with all the rest of the world, have been labouring under a mistake in supposing that "all" the medicines supplied to the sick poor in receipt of relief, by Guardians in the metropolis, would be paid for on and after the 29th day of September, 1867, out of the Common Poor Fund, as the plain reading of the Act seemed to indicate, the Poor-law Board having ruled that "when a medical officer has contracted with the Guardians to find drugs and medicines, he must continue to do so until his contract has been determined." As nearly all the contracts in question bind medical officers to find the medicines, and as very few of them have been determined since the Act came into operation, it follows that only a small proportion of "all" the medicines is at present paid for out of the fund instituted for this and other cognate purposes. It has been suggested, indeed, that medical officers under contract to find the medicines may apply direct to the dispensers of the Common Poor Fund for re-imbursement, and no doubt such application will be made. But the proper course appears to have been adopted by the Association in directing an appeal to the Poor-law Board to determine the contracts, with the view of carrying into effect the intentions of Parliament. If the Board have this power, they should use it; if they have it not, they should at once apply to Parliament for a supplementary Act. We shall probably return to this subject again shortly, as well as to the other topics discussed at the meeting of this useful and spirited Association.

Dr. John Davy, F.R.S.

We regret to announce the death of the venerable brother of Sir Humphrey Davy, which took place at Ambleside on the 24th ult. Dr. John Davy was born at Penzance in 1790, and was consequently full of years as well as of honour. He graduated at the University of Edinburgh in 1814, and was, for some time, an army surgeon. He attained a reputation as a chemist and physiologist, and was a voluminous writer, though, to the general public, he was perhaps best known as the author of the life of his still more distinguished brother.

Baby Farming.

THE system of nursing which has grown up, and upon the recent revelations of which we have several times commented, is, no doubt, of a most dangerous tendency, and deserving of full investigation. Some of our contemporaries seem to have met with shocking instances of inhumanity and crime. There is, however, no need to rush to extremes, and condemn every woman who takes a child to nurse, or adopts one, as a murderess. We have met with cases which, to an outsider, might look suspicious, but which were as straightforward as possible. We know of at least one case in which an advertisement was resorted to, and so equivocally was it expressed that it excited in the minds of some people grave suspicions, and yet we knew all the parties well, and could answer for their good faith. Bad, therefore, as some have been proved, let us not hastily accept the dictum that all are alike.

Peculiar People.

THERE is certainly no extent of liberty wider than that which is accorded to private folly and fanaticism in the British Empire, and the class of persons who avail themselves of their right to make fools of themselves, is no inconsiderable section of the population. But even in Great Britain the riding of hobbys is limited, and persons are not permitted to carry their own folly to the extent of injuring others, or annoying the public. A wholesome lesson to this effect, was inculcated last week, in the very just and proper prosecution for manslaughter of parents who, with the most guilty disregard of common sense or humanity, allowed their child to die of an unchecked lung inflammation, because they belonged to a fraternity of fanatics, who profess no belief in any curative power, but the direct interposition of the Almighty. The only steps which they took towards saving their child's life, was to secure the prayers of "the Elders," and, as a natural consequence of this neglect, the child died. The penalty of all this folly did not fall upon the parents, simply because the jury could not satisfy themselves that the disease was so trifling, that if proper medical advice had been taken, the child would have lived. The death could not be attributed, beyond doubt, to their neglect, and, therefore, the prisoners were acquitted, but it was distinctly stated that the plea of their disbelief in human aid, would not have, in the slightest degree, protected them from the just punishment of neglecting the proper means to save life. The "Peculiar People" are, no doubt, extraordinary specimens of self-opinionated fanatics, but every word of the law on this point, applies in a minor degree to the neglect of human means under the homœopathic system, and it seems to us that there is a very narrow distinction between the fanatic, who expects in every case of illness the miraculous interposition of God, and the fanatic who, in a similar exigency, confides in atomic divisions of nothing at all.

Bandaging.

AT the examination at the Royal College of Surgeons of London last week, a practical test in this subject constituted one important item of the requirements, and already the anticipation of this test has had the best effect in inducing students to avail themselves of every opportunity of acquiring proficiency in the manipulation. We learn, however, that out of eighty-seven candidates, seventeen were sent back to their studies for six months.

The Comparative Anatomy Lectures at the Royal College of Surgeons of London.

THE following is the programme of the course of twenty-four lectures on Comparative Anatomy to be delivered by Professor Huxley, F.R.S., in the theatre of the Royal College of Surgeons, which commenced on Monday, viz.—General remarks on the *Invertebrata*. The classification of the *Invertebrata*. An account of the organisation of the several groups of invertebrate animals in the following order :—The *Protozoa*, the *Infusoria*, the *Annuloida*, the *Annelida*, the *Arthropoda* or *Articulata*, the *Cœlenterata*, the *Molluscoida*, the *Mollusca*.

Horse-eating.

A GRAND banquet in furtherance of hippophagy is to be held on to-morrow (6th) at the Langham Hotel, and if it be possible to make horse-flesh attractive, no doubt the cookery and the wines of that celebrated hotel will effect the object. We have, however, no confidence in a half-adhesion to hippophagy, as at the last dinner, where as many dishes of French *entrées* were served as of horse-flesh. If that meat can be made sufficiently palatable, the hippophagists ought to be content with it; if not, they cannot ask the public to be so.

University of Cambridge.—Scholarships and Exhibitions for Natural Science in Trinity and St. John's Colleges.

AN examination in Natural Science will be held in Trinity College during next Easter week, and one foundation scholarship at least (of the value of about £80 per annum, tenable for five or six years) will be obtainable by adequate proficiency in that subject. The foundation scholarships of this college are open to all undergraduates of the college in the first, second, and third year of their residence, and to those of other colleges at Cambridge or Oxford in the first year of their residence. The names of candidates who wish to be examined in natural science must be sent in to the master not later than Wednesday, March 18th, together with the subject in which each candidate is prepared to be examined.

At St. John's College an examination will commence on Tuesday, 21st of April, 1868, at nine A.M., and besides two scholarships of £70 per annum, and two of £50 per annum for classics and mathematics, there will be offered for competition an exhibition of the value of £50 per annum, tenable for three years for proficiency in *Natural Science*—chemistry, including practical work in the laboratory, electricity, heat, and light. The candidates will also have the opportunity of being examined in one or more of the following subjects :—Geology, anatomy, physiology, botany ; and they may, if they think fit, offer themselves for examination in any of the classical and mathematical subjects, but excellence in some single department will be specially regarded.

These scholarships or exhibitions are open to all persons, whether they be students in the University or not, who have not yet commenced residence in the University, or who are in the first term of their residence.

Further information is obtainable from the tutors of the respective colleges.

Wells, Drains, and Disease.

IT happens, now and then, that such matters as the outbreak and ravages of a virulent and pestilential fever in a

quiet country village, like Terling in Essex, succeed in arousing the calm indifference of people's minds in reference to matters sanitary, and oblige them to see that it will not do to drink the drainage of dung-heaps and cesspools, and that their houses are better ventilated by means of open windows than by chimneys and drains.

It is a well-known fact that, in country villages, the usual plan of draining the houses is to carry the drains into a covered cesspool, sometimes quite close to the house, sometimes at a distance, but almost invariably this great receptacle of filth is placed in close proximity to the well from which the water-supply for drinking, and other purposes is obtained. The reason, we believe, for this most foolish and dangerous arrangement is to save expense in the laying down of pipes and drains.

In some parts of the country where there is a stiff clay soil it is necessary to empty the aforesaid cesspool from time to time, and so far as our experience goes, and we have paid some attention to the subject, these districts are rarely ravaged by fever. In other parts where the soil is dry and porous, we have seen these same cesspools or "dry wells," as they are sometimes called, and been told that they never require emptying, for the soil sucks up all the matter as fast as it collects in the well. We perfectly remember on hearing this how promptly the question jumped out, "Where is your well for drinking water? In answer, the well is pointed out close by. It is very obvious, therefore, that the matter absorbed from the cesspool will, of a certainty, soak into the well, and pollute the drinking water. Unhappily, it is of no use to tell people this, the arrangement has always been as it is, and so it seems it must remain.

Country surgeons can bear plenty of testimony to fever set up and propagated by drinking poisoned water. We have only to look at the instance of the fever at Terling, and only two or three years ago the whole household of a man named Groombridge, living in Essex, died poisoned from drinking water befouled with the oozings of a dung heap on which had been piled the horrid excreta of beasts that had died of the rinderpest.

We knew well a small town in one of the Midland Counties, standing high, dry, and airy, and yet, at times, ravaged by fever in a dreadful way. When conversing, a short time since, with one of the surgeons of this town, he told us how very perceptibly he had checked the progress of the last outbreak of fever, by making the people bury the excreta of the patients in places remote alike from drains and wells. It had been proved that in very many cases that the drains ran quite close to the wells for drinking water, and any oozing from the old brick drains soon found its way through the porous soil into the well.

Such are the dangers to health from the old cesspool system of drainage; the modern main-drainage plan by means of sewers, is not without its own dangers also, but they are dangers that can, by proper care, be in great measure averted.

A big sewer being but an elongated cesspool, should of course be kept at a distance from any channel of water supply, but this alone is not enough, for here the danger is mainly an *air* rather than a *water* danger.

Strong currents of air set up large sewers often with much force, and thus the sewer gases are forced into the houses, and fever is a certain result.

Thus was caused an outbreak of fever in a well-known watering-place, several years ago, and a much respected surgeon fell as one of its victims. To their praise be it said, the authorities of this place set manfully to work, and soon found that the cause of the epidemic was the forcing of sewer gas into houses where the drains were imperfectly trapped; by inserting ventilators into the sewers, and attending to the security of the traps in the house-drains, they soon succeeded in banishing fever from the place, so that it is now one of the healthiest and most popular of the winter resorts on the south coast.

General Education of Irish Students.

At the preliminary examination in general education, held last week in the Royal College of Surgeons in Ireland, 43 candidates presented themselves. To each student a printed paper in arithmetic and algebra, and an exercise in English orthography, etymology, and punctuation, were given, and each was further subjected to a *viva voce* examination in Latin and Greek. Of the 43 candidates, we believe three obtained first-class certificates, ten second-class, twenty-two were passed as unclassed, and eight were rejected.

Village Ambulance.

We have just visited the coach-building premises of Mr. O'Neill, North Strand, Dublin, where we were shown a very useful ambulance made by him, of which we hope to give a more detailed notice in our next. It will be on view for some days, and we strongly recommend professional men in Dublin to call and examine it. It is made to order of Dr. Bolland, of Gardiner's-place, Dublin, father of the gentleman mentioned in the following inscription, which we copied from a brass plate on the vehicle itself:—"Presented to No. 1 District Daventry Union, in memory of Dr. John Bolland, their Medical Officer, who died April 25th, 1864." The weight of this most elegantly-constructed and useful ambulance is only two cwt.; and it may be drawn by one hand with ease on a road, or in the wards of an hospital.

The triumph of the principle we have advocated respecting the vacant coronership is now secure, the legal candidate having retired. Also, we may announce that Mr. Brown will not go to the poll, as we anticipated from the first. What a pity that Drs. Hardwicke and Diplock cannot settle their relative claims without the expense of a contest which can only illustrate the folly of the present mode of appointment. We hope even yet that something may be done to stay this waste of money.

We learn that an important alteration in the hospital staffs of the Meath and Richmond Hospitals will shortly take place. The surgeoncy to the Richmond Hospital, held for fourteen years by Mr. Fleming, has become vacant by the resignation of that gentleman, who, as consulting surgeon, will still retain his connection with Dr. Steevens' Hospital. His office at the Richmond Hospital will be filled by the appointment of Mr. William Stokes, who resigns his surgeoncy of the Meath Hospital for that purpose. Mr. Stokes, as our readers are aware, is lecturer on Surgery in the Carmichael School, which is immediately attached to the Richmond Hospital. For the vacancy on the staff of the Meath Hospital, justly esteemed one of the first surgical positions in Ireland, there are, as might be anticipated, many claimants. It would be insidious, however, under the present circumstances, to signalise any individual.

Dr. Barker has resigned St. Thomas's Hospital. Dr. Chowne has done the same at Charing-cross, and Dr. Willis at the Westminster. Here then are three fresh vacancies. Gentlemen ambitious of assistant-physiciancies have now an opportunity. We believe there are also other vacancies either in process of filling up, or being created, and by the times these lines are in the readers' hands, there may be more still.

Society Proceedings.

SURGICAL SOCIETY OF IRELAND.

Dr. Adams, President of the College, in the Chair.

This Society met on Friday evening, 17th January, at the Royal College of Surgeons.

Mr. H. G. Croly read the following paper:—

GLOSSITIS.

At a meeting of the Surgical Society held on the 18th of January, 1867, I read a paper on acute idiopathic glossitis, illustrated by seven cases, and at a meeting of the Society, held on the 15th of February following, I detailed the history of another case of unusual severity treated in the City of Dublin Hospital. I now have an opportunity of reading a short history of two cases since met with in my own practice, and also of three cases which occurred in the practice of my friend, Dr. Hadden, of Clonakilty.

On the first of May, 1867, I was requested to visit Mr. D., in consultation with Dr. M'Cormack.

The patient, who is over 70 years of age, and always enjoyed good health, complained on Easter Monday of a soreness about his tongue —three days subsequently, Dr. M'Cormick visited him, and found him suffering from all the ordinary symptoms of acute glossitis of the *left half* of his tongue. Saliva dribbled from his mouth, his speech was thick, he had dyspnœa and dysphagia. The left submaxillary gland was tender to the touch. Leeches were applied to the left submaxillary region, and a purgative administered. At my visit, I found the patient partly sitting up in bed and unable to articulate. I made pressure on the tonsils, and found them free from enlargement or tenderness. The *left half* of the tongue protruded between the teeth, and almost completely filled the cavity of the mouth on the affected side, whilst the right half was natural. I ascertained that the inflammation had gone on gradually for nine days. the patient slept none for some nights. I suggested a free incision should be made at once into the inflamed organ, which the patient consented to, and having him placed in an arm-chair, I introduced a sharp-pointed curved bistoury flat into the mouth and well back to the base of the tongue, and having turned its edge towards the dorsum of the tongue, made a *deep* and *long incision parallel* with the raphe and mid-way between it and the edge of the tongue; blood and serum escaped freely, and I found it necessary, in consequence of the patient's age and debilitated state from want of sleep and food, to plug the incision with lint; pressure was made with the finger on the lint, and thus the hæmorrhage was controlled. The patient was put into bed, and drank some port-wine negus. He expressed himself as relieved at once by the incision. He was ordered beef-tea, and eggs beaten up with brandy.

May 2nd.—Patient says he slept well. The tongue has diminished in size, and shows the deep indentations of the teeth at the left side. As the submaxillary gland remained tender, I suspected that an abscess had formed in it, and having made slight pressure on it, some healthy pus escaped through the incision in the tongue.

A chlorate of potash gargle was prescribed, and also a bark mixture with chlorate of potash.

The patient made an excellent recovery, and the wound in the tongue healed with the usual rapidity, but the speech remained thick for some days, and the *hardness* consequent on the infiltration of lymph into the muscular substance of the tongue gradually diminished.

I got a photograph taken of the patient before the tongue regained its natural size, and I now exhibit it to the members of the society.

Case 2.—Patrick Toole, aged 33 years, a labourer, was in good health until Monday, July the 8th, 1867, when he felt a soreness about the root of his tongue; he continued at work until the 11th inst., he then felt a difficulty in swallowing; his tongue swelled at the *right side*, and was painful; saliva dribbled from his mouth; he had not been taking any medicine; I was requested to visit him on the 12th of July, and found him suffering from the following symptoms:—

Voice peculiar and *speech thick; right half* of the tongue inflamed, and elevated, and *rounded* at the tip, sublingual glands infiltrated and raised on a level with the top of the incisor teeth; anterior surface of the tongue covered with an adhesive white exudation; slight dyspnœa, and some dysphagia; pulse 90 and full.

Treatment.—Numerous punctures were made with a bistoury into the infiltrated sublingual space, which bled freely, and discharged a large quantity of serum. The tongue was well dried, and four leeches were applied on the dorsum at the right side; they bled very freely, and the bleeding was encouraged by washing the mouth with warm water; two purgative pills were prescribed, and his antimonial mixture. The inflammation gradually subsided, but the *hardness*, consequent on the effusion of lymph, remained for several days.

IDIOPATHIC GLOSSITIS.

Case 1.—John M'C., age 25, a small farmer, got a severe wetting four days before; there were smart feverish symptoms ushered in by a rigor, and within forty-eight hours the tongue was swollen and painful; deglutition difficult, and his speech thick. When I first saw him (on the fourth day) the inflammation was chiefly confined to the root of the tongue, and extended to within about an inch of the tip; from my experience of a traumatic case some weeks before, I delayed the incisions usually made in such cases, and gave a mixture containing sulphate of magnesia and tartar emetic, every third hour. On the second day after, I called, and found my patient so much better that he got up, and gone to some old woman, who lived nearly a mile off, to have the cure completed. Within a week he called at my own house, when only a small spot of hardness remained, which was quite painless, and gave him little or no annoyance.

Case 2.—A dairyman, age 45, who had been also exposed to severe cold, and was obliged to remain in his wet clothes all night. I saw him on the third day, having been hurried off by a message to say that he was choking. When I reached him his symptoms were little short of suffocation; the tongue was immensely swollen, and protruded between the teeth; there was profuse salivation; the countenance livid and tumid; his pulse 120, hard and bounding. In this case there was no time for delay, so I immediately made two long incisions into each side of the swollen organ, from base to tip; they gaped widely, and gave exit to a smart hæmorrhage, but in less than half-an-hour my patient was able to lie back comfortably. I gave him, also, the sulphate of magnesia and tartar emetic mixture, and in a few days he was quite convalescent.

Case 3.—A child, 6 years old, the daughter of a coast-guard. Some six or seven weeks previously, she had a mild attack of gastric or remittent fever, from which she had recovered nicely, when she was exposed to cold on a stormy day—the station being in a very exposed position. For the first week I did not see her, but was told by her father that she could swallow very badly; that they noticed her speaking indistinctly, and saliva running from her mouth. On the eighth day I saw her, when, finding pretty distinct evidence of fluctuation, I made an incision in the tongue, at the left side of the raphe, when a large quantity of healthy pus exuded. I ordered a permanganate of potash gargle, and from that hour, my little patient made a rapid recovery.

Dr. Henry Kennedy said that on the first occasion Dr. Croly brought this subject before the Society, he took an opportunity of saying that he had seen a number of these cases of inflammation of the tongue which he looked at from a different point of view from that which Dr. Croly had done. Mr. Croly looked upon them as idiopathic; whereas, he (Dr. K.) considered the swelling of the tongue as secondary to inflammation of the glands and areolar tissue in the neighbourhood. Such cases were comparatively common in erysipleas, scarlatina, and diffuse phlegmon. But they also occurred where no specific disease existed, and of this he had a marked example, in November last, in the person of a young man of 18, admitted into Cork-street Hospital, as it was thought for fever. The patient had fever, but he had also inflammation of the parts under the chin, and the tongue was very much enlarged; it was much swollen and very painful. There was great salivation, a total inability to swallow, and his speech could not be

understood. It was not possible to see into the throat. Leeches applied three times under the chin gave prompt relief and the patient got rapidly well. Nor did the occurrence of inflammation, confined exclusively to one side of the tongue, militate against the views he put forward; for, of course, the inflammation might be confined to one side of the jaw, and then that side of the tongue would necessarily be the side involved. Both the cases given by Dr. Croly himself this evening seemed to Dr. Kennedy to bear out these views; for in one the submaxillary region was admittedly engaged, whilst in the other the parts in the sublingual region were involved.

Mr. WHARTON said that Dr. Kennedy was speaking of an affection of the tongue wholly different from that brought forward by Dr. Croly. He (Dr. K.) considered it to be secondary to an inflammation in a situation near the tongue, whereas, Dr. Croly was alluding to cases in which the affection was not of a secondary but of a primary nature. He thought that the profession in Dublin should be greatly indebted to Professor Geoghegan for his able paper on glossitis, and also to Dr. Croly for placing the results of his cases before the Society.

The PRESIDENT observed that Dr. Croly spoke of surgical glossitis, while Dr. Kennedy referred to medical glossitis. This subject had been treated of by Graves and others, and Boyer alluded to what every one had observed who had seen cases of inflammation of the tongue, that one-half of the tongue was sometimes only affected. The disease was one which required very active treatment, such as free deep incision on the dorsum, the mouth being kept open by a proper instrument, and thus treated was not dangerous: but if neglected œdema of the glottis would, most probably, ensue, as in erysipelas, and cause the death of the patient.

Dr. TUFNELL said it was most desirable that free incisions should be made in the tongue, otherwise, if the patient lived, an abscess would, most probably, form, and one of a most fœtid character. He had seen patients brought into the hospital with abscesses in the tongue almost as fœtid as those which were found in the neighbourhood of the rectum; and it was important that this should be prevented.

Dr. STAPLETON asked did any gentleman ever see any of these cases without their being first a swelling under the jaw or at its angle? Did they ever see the tongue primarily swollen? What he called surgical glossitis was where there was an abscess formed at the root of the tongue. He never yet saw a case of glossitis in which the glands under the jaw were not first affected. No doubt a free incision was necessary when there was much inflammation. It was quite a different thing when there was erysipelas, not only externally but also in the mouth. Then, indeed, there was danger of œdema of the glottis.

Dr. WHITE hoped they would not depart from the subject without some strong expression of opinion as to the best mode of treatment. He had seen but two cases of what he considered true surgical glossitis, one of which was under the care of a friend, the other under his own care. In the former case, deep and long incisions were made. The man had severe rigors, followed by rapid swelling of the tongue. He did not remember whether there was any swelling of the neck. What attracted his attention when he saw the patient was, that the tongue, which was protruded from the mouth, was of a deep purple colour, and one side of it tremendously swollen, while the other was not. The treatment adopted was that recommended by the President—free incision. His friend made incisions, and the man had a good recovery. Some three or four weeks afterwards, he (Dr. White) met with a similar case at Templeogue. The patient was a man employed at a mill in the neighbourhood. He was a hard drinking man, and after one of his bouts he slept out in the field, and got a severe wetting. He was attacked with rigors, followed by swelling of the tongue. He saw him two hours afterwards; the tongue then protruded from the mouth, and he could not return it; both deglutition and speaking were almost an impossibility. He applied eleven or twelve leeches to the man's tongue, causing free bleeding, and in a few hours he was perfectly relieved. He recovered in much less time than the patient whose tongue was scarified. He saw no difference between the two cases in point of urgency.

Professor HARGRAVE said, that some years ago he saw an interesting case of pure glossitis, under the care of Dr. Benson, in the City of Dublin Hospital. There was inflammation at the right side of the organ; the man could barely breathe; the tongue protruded from the mouth, and there was sublingual swelling. A free incision was made, and free bleeding followed. The recovery was rapid. He was certain it was a case of true uncomplicated glossitis. He greatly preferred a good free incision to the use of leeches, in order to guard better against the formation of abscesses; for if they did form at the root of the tongue, they would be found very difficult to manage.

Dr. FLEMING observed that since the discussion on this subject last session he had carefully watched at the Richmond Hospital to meet with a case of true surgical glossitis, but he had not met with one case during the last twelve months. He believed the Surgeons connected with Steevens' Hospital who were present could say the same. It was therefore a disease of comparatively rare occurrence; but no doubt when it occurred it required active treatment.

Dr. CROLY, in reply, said he thought the distinction which had been drawn by the President between surgical and medical glossitis was a very important one. He had met with cases of both, but it was the former only to which he now referred. The effusion of lymph, the result of inflammatory action, was a different thing from the rapid engorgement of the tongue which occurred in cases such as Dr. Kennedy referred to; and the hardness remaining was a symptom of the true glossitis. With regard to Dr. White's observations, he had only to say that there were two classes of symptoms in every disease—the very urgent symptoms and the early symptoms. In the early symptoms of glossitis he had himself used leeches and cut short the inflammatory symptoms. In one case which occurred last year the symptoms were so urgent that Dr. Gray asked him, if it occurred to him, that it might be necessary to open the woman's windpipe if inflammation attacked the base of the tongue. It was very little matter whether the disease was called glossitis or inflammation of the tongue. What he wished to insist upon was the necessity of active treatment.

The PRESIDENT observed that Dr. White spoke of scarification and leeching of the tongue, in contradistinction to what he recommended—a long free incision; but of course Mr. White cannot contemplate, when he speaks of scarification and leeching merely, those severe cases which threaten life by suffocation.

[The remaining papers read at this Meeting will appear in our next.—Ed. M. P. & C.]

LONDON METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE quarterly report of the Council, after congratulating the members upon the success of their labours with respect to the removal of pauper lunatics to the asylums, the Poor-law Board having, upon their appeal, supported by the influential aid of the Commissioners in Lunacy, issued a circular to the guardians in consonance with the recommendations of the association, and correspondence between the council and the Poor-law Board upon the subject of medical officers' salaries and tenure of office, proceeded as follows:—

"The Board could not well promise more than they have done; but, meanwhile, it is to be hoped that they will, in the exercise of the powers conferred upon them, give a liberal interpretation to the compensation clauses of the Metropolitan Poor Act, 1867, if it should become necessary, in carrying out the new arrangements, to displace any of the Medical Officers, who, having enjoyed for many years what they and every one else deemed to be life appointments, are now told that their appointments are annual, inasmuch as the Poor-law Board have not issued their order of 25th May, 1857, to the parishes.

"Your Council regret to learn that considerable misunderstanding appears to exist as to the proper interpretation of clause 3 of section 69 of the Metropolitan Poor Act, which enacts that after the 29th day of September, 1867, expenses incurred 'for all medicines and medical and surgical appliances supplied to the poor in receipt of relief by guardians under this Act or any of the Poor-law Acts' shall be repaid out of the Common Poor Fund. In some unions and parishes the guardians have compensated their Medical Officers for the stock of medicines on hand, and provided all medicines, &c., since Michaelmas-day last; and this without, in any case, it is believed, diminishing the salaries of the Medical Officers—liberality which it would be ungracious not to acknowledge as it deserves. Other boards, contending that the Act does not compel, and that it is optional with them to provide the medicines, have held their medical officers to the strict letter of their contracts, which require them to provide the medicines.

"Your Council believe that Mr. Hardy and the legislature in-

tended the clause in question to be interpreted literally; and that all medicines and appliances both for the in-door and the out-door poor of the metropolis should be supplied by the guardians at the cost of the Common Poor Fund. It may be hoped that ere long the Poor-law Board will see fit to express their views upon this important question.[1]

"Valuable as the boon of medicines would be, its value would be very greatly enhanced if properly qualified dispensers were appointed to the larger workhouses.

"The metropolitan inspectors, in their joint report (18th January, 1867),—a report which has a deep significance in connection with the passing of Mr. Hardy's Act—recommend that 'whenever the number of sick exceed 100, a dispenser of medicines should be appointed to the hospital.' Why not then to the present infirmaries under the same circumstances? The duty of the Medical Officer should be medical work, and not, as too much of it now is, dispensing and desk work. And this leads your Council to remark upon the large amount of writing imposed upon Medical Officers by the 'Workhouse Medical Relief Book'—a duty which is rendered doubly arduous from the want of proper dietary tables, leading to the crowding of the weekly return with the names of the merely infirm, who, because the 'house diet' is almost universally unsuitable for this class of inmates, have to be treated as 'sick.' Your Council hope that the system will ere long undergo revision. The metropolitan inspectors, in the report already adverted to, say that the Medical Officer should 'regularly visit every patient under his charge, and make a note of such visit on the prescription-card hanging at the head of the patient.' If this were done in every case (as it has long been done in some workhouse hospitals); and if the diet were entered upon another card; and if all visits, prescriptions, and diets were registered, as they might be by a clerk or dispenser; or if the cards were carefully preserved, the objects served by the present system would be attained, and the Medical Officer, freed from the drudgery of the pen, would be able to devote all his time and energies to the higher duties of his place. But it would be necessary to have 'Special Dietaries,' which the inspectors recommend 'should be framed by the Poor-law Board and uniformly adopted in all the metropolitan workhouses.'

"Your Council believe that the inspectors could do no greater service to the sick poor and their medical attendants than by using their great influence to procure the adoption by the Poor-law Board of the foregoing recommendations made by themselves, and which are in complete accordance with the views advocated from the beginning by the Association.

"Up to the present time it would appear that no 'dispensaries' have been opened in the metropolis under Mr. Hardy's Act; but in several of the unions and parishes preliminary arrangements with this object are understood to be under the consideration of the guardians and the Poor-law Board.

"In concluding their Report your Council feel that it would not be right to pass over, in silence, a subject which must be present, and a source of regret to every mind—viz., the suspension of the President by the board of guardians whom he has served so long and faithfully. As the charges brought against Dr. Rogers by a section of the guardians are still *sub judice* it would be unbecoming to express any opinion upon them beyond this, that they appear to be wholly of a personal character, and in no way reflect upon his skill and attention as a Medical Officer.

"Your Council having undiminished confidence in the President rejoice to observe the manifestations of support and sympathy extended to him by the most influential of the guardians, by the press, and by his fellow-parishioners in public meeting assembled; and, relying implicitly upon the justice and impartiality of the Poor-law Board, they look forward to his speedy restoration, without stain or reproach to his former sphere of usefulness."

The PRESIDENT moved the adoption of the report.

The HON. SECRETARY read a correspondence which had been forwarded to the Council by Mr. B. Clarke, the medical officer of the East London Union Workhouse, between that gentleman, the guardians, and the Poor-law Board, on the subject of the supply of medicines for the sick poor in the metropolis, and which raised a very important point—viz., whether section 69 (clause 3) of the Metropolitan Poor Act, 1867, relieved medical officers who had contracted with guardians to find the medicines, from the necessity of continuing to do so, it being supposed that such was the object of the clause.

After an animated discussion, the following resolution

"The meeting having taken into consideration the correspondence submitted between the Poor-law Board and the guardians and medical officer of the East London Union Workhouse, relating to the supply of medicines for the sick poor, in which the board state their opinion that clause 3 of section 69 of the Metropolitan Poor Act, 1867, 'does not interfere with the existing contracts; and that so long as such contracts continue, their terms must be complied with. Hence, where a medical officer has contracted with the guardians to find drugs and medicines, he must continue to do so until his contract has been determined:'

"Resolved, that the Association desires to express the disappointment with which it has learnt the opinion of the Board, and, believing it to have been the intention of the legislature that all medicines, &c., supplied to the sick poor in receipt of relief by guardians in the metropolis, on and after the 29th day of September, 1867, should be paid for out of the Common Poor Fund, requests the Council to memorialize the Board that they would be pleased to exercise the powers vested in them by the Act, and to vary the existing contracts so as to give effect to the intentions of the legislature."

Which, with the foot-note in the Council's Report, explains the drift of the subject, was unanimously adopted, as was also the following resolution:—

"The Association, believing that the time occupied by Medical Officers in dispensing medicines and in keeping the 'Workhouse Medical Relief Book,' is so much time lost to the service of the sick poor:—

"Resolved, that in the opinion of this meeting the appointment of dispensers to the workhouse infirmaries would be true economy; and that by the use of diet and prescription cards (on which all necessary particulars of each case should be entered by the Medical Officer—to be copied thence into the Workhouse Medical Relief Book by a clerk or a dispenser) the ends served by the present irksome and laborious system would be attained, and the Medical Officer be thus enabled to devote the whole of his time to his medical duties."

The proceedings were brought to a conclusion by a vote of thanks to the Officers and Council for their services during the past quarter, and to the President for his conduct in the chair.

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1 Since the Report was in type, the Council have been favoured by Mr. B. Clarke, the Medical Officer of the East London Union Workhouse, with a copy of an important correspondence between the Poor-law Board, the guardians, and himself, upon this subject; and as the "views" of the Poor-law Board are very clearly stated therein, the Council gladly avail themselves of Mr. Clarke's permission to use the correspondence "as they may think fit." It appears that on the 4th November last, Mr. Clarke wrote to the guardians calling their attention to section 69, clause 3, of the Metropolitan Poor Act, 1867, with the view of getting the medicines, &c., supplied by them at the cost of the Common Poor Fund, in accordance with the terms of the Act. On the 7th November, the guardians wrote to the Poor-law Board, and, after citing the clause, and stating that the Medical Officer "is under a contract to supply the sick poor with medicines," inquired "whether the clause in question has the effect of altering the arrangement between the guardians and Mr Clarke," and what, in the opinion of the Board, "is the proper course for the guardians to adopt?" The Poor-law Board (Nov. 25th) forwarded the letter of the guardians to Mr. Clarke for any observations he might wish to offer thereon; and that gentleman, having (Nov. 29th) stated his belief that the Act required the guardians to provide the medicines at the cost of the Common Poor Fund,—"fortified in this opinion by the action already taken by the guardians of other Metropolitan Unions."—the Poor-law Board replied, on the 16th December, to the inquiry of the guardians as follows:—"That in the opinion of the board, section 69 of the Metropolitan Poor Act, 1867, does not interfere with the existing contracts, and that so long as such contracts continue, their terms must be complied with. Hence, where a Medical Officer has contracted with the guardians to find drugs and medicines, he must continue to do so until his contract has been determined."

The Council submit the foregoing extracts, the upshot of which they think will surprise the members and the public as much as it has surprised them, without a word of comment.

RATE OF MORTALITY IN NEW YORK.—In the city of New York in the year 1867, 23,170 persons died, in a population now estimated at 900,000, or 25·75 per thousand. In Brooklyn the mortality was 8325, in a population of 370,000, or 22·50 per thousand. It is stated that more than 3600 of the persons dying in New York were buried from the hospitals and public institutions, and that among the 19,500 persons who died in the dwellings of the city there were nearly 12,000 children under five years of age, 7000 (in round numbers) being infants not a year old. More than a fourth of the deaths were caused by preventible diseases. The deaths in New York were 3645 fewer than in 1866.

Address.

LESIONS OF CUTANEOUS SENSIBILITY IN DISEASE.

THE INAUGURAL ADDRESS DELIVERED IN THE DINING HALL OF TRINITY COLLEGE.

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(Continued from page 102.)

ANÆSTHESIA alone, that is without paralysis of voluntary movement, is not a symptom of disease of the spinal cord, save in very exceptional cases, such as softening commencing in the very place where the decussation of the sensitive conductors occurs; a slow increase of fluid in the central canal, as in spinal bifida; or in vertical division of the cord (diplomyelia). This must become evident when it is stated that paralysis of voluntary movements, in diseases of the cord, is an essential symptom not only of an alteration of the anterior columns everywhere except near the medulla oblongata, but also of an alteration of the whole central part of the gray matter. Anæsthesia regarded then as constituting one—and one only—of a group of symptoms in disease of the spinal cord, must be, and in reality is found to be, indicative of an alteration of the gray matter; and this conclusion seems to hold good with respect to the loss of each of the various kinds of sensibility. For, alterations limited to either of the white columns do not cause anæsthesia of any kind. The result of such alterations is either paralysis or hyperæsthesia.

It is a remarkable fact that a transverse section of the posterior columns, in former times the only pretended channels of the sensitive impressions, instead of, as might hence be predicated, being followed by a diminution of sensibility, is followed by the very reverse. The result of this operation, whether performed in the lumbar, dorsal, or cervical regions, is always the same. There is a manifest hyperæsthesia in the various parts of the body which receive their nerves from the portions of the cord behind the section. A section of either the anterior or lateral columns is also followed by a slight degree of hyperæsthesia. It is also one of the results of a transverse section of certain parts on the posterior side of the encephalon, namely, the restiform bodies, the cerebellum with its superior peduncles (processus e cerebello ad testes) and the tubercula quadrigemina.

Hyperæsthesia, therefore, is chiefly characteristic of lesions of the posterior columns of the cord, and of the portions of the brain which are their direct continuation upwards. Most frequently, like anæsthesia, it coexists with loss of movement: unlike it, however, it may exist alone.[1] This occurs in cases of alteration, very little extended, of the posterior columns, or of the cerebellum. But there is much less hyperæsthesia when the posterior columns are altered in a great portion of their length, even though the posterior roots and the gray matter remain normal. This is explained by the fact that many conductors of sensitive impressions which pass for a short distance in these columns are injured: and, although the same causes of hyperæsthesia exist then, as after a simple section, this excess of sensibility does not show itself on account of the diminution of sensibility due to the alteration of the posterior columns. There is a kind of compensation, in such cases, between the causes of anæsthesia and hyperæsthesia, so that the degree of sensibility remains nearly normal.

It is, however, as a symptom of a diseased condition of the membranes which invest the nervous centres that, within the last few years in our own isle, the occurrence of hyperæsthesia has acquired such a significance. Olliver,[2] indeed, in 1837, in his celebrated treatise on the diseases of the spinal marrow, noticed this increase of sensibility in spinal meningitis, and regarded it as a means of diagnosis between inflammation of the membranes and of the substance of the cord: the latter being usually accompanied by diminished sensibility. But, long previously, from the times of Vieusseux,[3] in the commencement of the present century, it had attracted notice in the course of a disease of an epidemic nature, the pathology of which was closely connected with inflammation of the membranes of the brain and spinal marrow. I refer to that remarkable disease, epidemic cerebro-spinal meningitis, which, long known on the continent of Europe and North America, has, within the past few years, a second time visited our shores. In adopting for it this title, I merely follow in the steps of Tourdes, of Mayne, of Niemeyer, of Burdon-Saunderson, of Hirsch, of Mannkopf, and of Stillè, names ever to be associated with its history.

Of this disease, during the epidemic at Strasbourg in 1841, Tourdes[1] regarded hyperæsthesia, whenever present, as absolutely characteristic; and since that time others[2] have so frequently observed it, that they too have dared to hold similar opinions. Though we may not concur fully in these sentiments, we cannot hesitate to admit its importance as a symptom. During the recent epidemic it was a condition far from infrequent. On the contrary, its absence was rather the exception. Sometimes the whole, sometimes portions only, of the surface of the body were sore to the touch, and in extreme instances the slightest movement caused exquisite pain. Niemeyer,[3] who also describes it, states that it is sometimes followed by cutaneous numbness or insensibility, which he ascribes to pressure upon the posterior roots of the nerves by the products of inflammation. Anæsthesia, indeed, in this disease, in point of constancy as a symptom, is the very reverse of hyperæsthesia. It has been observed much less frequently, and has been almost universally[4] regarded as expressive of a general state of depression.

Anæsthesia further may be due to alterations of the sensitive nerves in any part of their course, to diseases of the encephalon, and to the poisonous action of various substances. Rut there is a form of anæsthesia much less known, dependent on a morbid reflex action, which may arise in diseases of all the viscera, and from irritations of any sensitive nerve in any portion of its length.

The possibility of a paraplegia more or less complete, without visible alteration of the spinal cord or of its nerves, and dependent on affections of the urinary organs,[5] now admits of no doubt. Other viscera also of the abdominal and thoracic cavities[6] may be the starting points of a paralysis. In the same manner the production of anæsthesia alone from irritation of the periphery is as common as that of paralysis. Cases are on record which abundantly illustrate this proposition—cases of anæsthesia of the lower limbs due to sciatica;[7] of the arm to a cervicobrachial neuralgia; of the face to neuralgia of the infraorbital nerve;[8] and of anæsthesia more or less extended due to various forms of irritation of the skin.[9]

Hyperæsthesia also not infrequently has been found similarly associated. Trousseau[10] has noticed its occurrence, as almost constant, at the peripheral termination (point d'expansion terminale) of the affected nerves in neuralgia—especially in the neuralgia which accompanies herpes zoster—and as best marked in the intercostal, lumbar, and crural forms of this affection.

At first, indeed, and for some time, there are often only phenomena indicating exaltation of sensibility; but subsequently, with the continuance of the malady, the sensibility of the parts, previously exalted, may become much diminished.

In many of these cases the affection has subsided speedily after the cessation of the irritating cause, and, where an autopsy has been made, there has been no visible alteration of the nervous centres. These facts tend to show that the symptoms were not due to a central nervous affection, but to an irritation of some centripetal nerve.

As another very remarkable instance of the occurrence of both hyperæsthesia and anæsthesia, without accompanying lesions of the brain or spinal cord, may be noticed the celebrated Epidêmie de Paris in 1828. It has been described by Chomel[11] and subsequently by Graves[12] as commencing with sensations of pricking and severe pain in the integuments of the hands and feet, accompanied by so acute a degree of sensibility that the patients could not bear the parts to be touched by the

1 Brown Séquard. Phys. Nerv. System.
2 Olliver d'Angers. Traité des Maladies de la Moëlle Epinière.
3 Journal de Med., Chirurg., Pharmacie, &c. An. xiv., xi., 163.

1 Histoire de l'Epidemie de Méningite Cerebrospinale observée à Strasbourg en 1840 et 1841.
2 Jenks, Merkel, &c.
3 Die Epidemische Cerebrospinal Meningitis.
4 Corbin, Levy, Mayne, &c.
5 E. Stanley. Medico-Chirurgical Transactions, vol. xviii. Rayer Traite des Maladies des Reins, vol. iii.
6 R. Graves. Clin. Lects.
7 Notta. Archives Generales de Médicine. 1854.
8 Brown Séquard. Phys. Nerv. System.
9 O'Brien. Récherches sur l'Anesthesie.
10 Clinique Medicale de l'Hotel Dieu. Vol. i.
11 Journal Hebdomadaire, No. 9.
12 Clinical Lectures.

bed-clothes. But after some time—a few days, or even a few hours—a diminution, or even an abolition of sensation took place in the affected members. They became incapable of distinguishing the shape, texture, or temperature of bodies: and finally they were observed to become altogether paralytic. The injury was not confined to the hands and feet alone, but, advancing with progressive pace, extended over the whole extremities. Persons lay in bed powerless and helpless, and continued in this state for months. At last, at some period of the disease, motion and sensation gradually returned, and a recovery generally took place, though in some instances the paralysis was very capricious, vanishing and again returning. The French pathologists, it is said, searched anxiously in the nervous centres for the cause of this strange disorder, but could find none. There was no evident lesion, functional or organic, discoverable in the brain or spinal marrow. Here, then, is a singular instance, not merely of peripheral paralysis, but of peripheral anæsthesia and hyperæsthesia.

But anæsthesia and hyperæsthesia are not the only, or even the best-known, forms of reflex phenomena which may be due to irritations of sensitive nerve-fibres. Changes in the nutrition of other parts of the body may also thus be produced—alterations of nutrition, which, Brown-Séquard endeavours to prove, are the result of an action of the cerebro-spinal axis reflected upon itself through the nerves going to its blood-vessels.

Morbid changes of nutrition in the nervous centres having as their issue insanity in its various forms, and even the general paralysis connected with it, epilepsy, chorea, catalepsy, extasis, hydrophobia, tetanus, hysteria, and all the varieties of nervous disorders may be the result of a simple and often slightly-felt, or even unfelt, irritation of some sensitive nerve; and the suppression of these irritations may promptly cure the patient, just as in cases of epilepsy. Many other morbid influences also might be mentioned as due to alterations of the centripetal nerves: but we will content ourselves with merely noticing the close relationship which often exists between skin affections[1]—the zona, pemphigus, erythema, urticaria—and neuralgia; inflammations of the various viscera and extensive burns;[2] sudden death by stoppage of the heart's movements and the influence of very cold drinks or blows upon the abdomen; the reflex influence of injuries to the trigeminal nerve upon the eye;[3] and the reflex influence of one eye upon the nutrition of the other.

The influence of reflex irritations upon the secretions is also full of practical interest. Any irritation of the eye or of the mucous membrane of the nose causes an increase in the flow of tears; and it has been shown[4] that when, through injury to the trigeminal nerve, the eye has lost its sensibility, tears are no more shed when this organ is irritated. Other secretions also can be produced by reflex action—the secretion of milk and of the menstrual fluid by irritation of the mammæ; of saliva by irritation of the mucous membrane of the stomach by food; of the gastric and pancreatic juices and of bile by an excitation of the nerves of taste; ptyalism[5] and even perspiration[6] by neuralgia.

Great importance attaches to the knowledge of these facts; and the history of the treatment of disease by means of the powerful influence of an excitation of sensitive nerves of remote organs would afford us, doubtless, as many interesting facts as the history of the reflex production of secretions and morbid changes.

Passing from this to the sympathetic system, curious lesions of sensibility are again presented to us. The experiments of Claude Bernard[7] have fully demonstrated the results of injury to this nerve in the neck. Paralysis of it he has shown to be followed by hyperæsthesia on the corresponding side of the face; irritation of it by anæsthesia – effects which seem principally due to the increased or diminished quantity of blood in the vessels.

In contrasting these lesions of the sympathetic in the neck with those of a lateral half of the spinal cord in the mid-dorsal region, with regard to their effects on the side of the face and on the lower limb of the corresponding side, it is remarkable how close an agreement is found. So close, indeed, is this agreement that, reasoning from these and other facts, the important conclusion has been arrived at by Waller, Brown-Séquard, and still more recently by Claude Bernard, that the sympathetic is essentially the great nerve of blood-vessels; and that, far from being a distinct nervous centre, as was formerly, and even still too frequently is, imagined, it is itself merely a great and peculiar portion of the cerebro-spinal axis, from which its many branches issue at a point corresponding to, or immediately above, the middle of the dorsal region of the spinal cord.

There is something very beautiful in the manner in which loss or diminution of one sense is followed by increase in the intensity of others, or rather, as Abercrombie remarks, by an increased attention to the indication of the other senses. The blind acquire a surprising delicacy of touch, even to the extent in some cases of distinguishing colours; the deaf and dumb the habit of understanding what is said to them by watching the motions of the lips of the speaker. These facts excite our wonder. Yet we must admit that, even curious as they are, they are surpassed by the accredited record[1] of a French gentleman, with whom, though having lost every sense except the feeling of one side of his face, his family acquired a method of holding communication by tracing characters upon the part which retained sensation.

Cutaneous sensibility, in truth, is as distinct an endowment as the sense of vision. Neither inferior nor more common, its nerves, though necessarily widely extended over the surface of the body, are as appropriate as if they were gathered into one trunk, like those belonging to the organs of vision and of hearing. The most necessary of the senses, it is enjoyed by all animals, from the lowest to the highest in the chain of existence.[2] Distinct from the others, it is the most important of any: for it is through it alone that some animals possess the consciousness of existence, and, to those which enjoy many, this is essential to the full powers with which they are endowed.

With these brief and imperfect notices, I must be content to dismiss the subject, not that it is in any way exhausted, or indeed handled in the manner such a theme deserves. Sufficient, however, has, I trust been stated to stimulate to further inquiry, and to induce more careful observations of cutaneous sensibility in disease. Should such happily result. in however small a degree, our meeting this evening shall not have been wholly without profit.

From these deeper studies, turning once more, merely for a moment, to a consideration of the general interests of the society, let me conclude by urging on the members the necessity, on their part, for action. We desire not merely your names to swell its numbers. We ask much rather that your best energies be enlisted in its service. Active members, you can each much further; inactive, much retard the advance of our society. Let our meetings be as few as you will, but let them be full of vigour: for energy begets energy, even, as in nature by an immutable law, motion is induced by motion. Let me invite you by your regular attendance to evince the sincerity of your sympathy; and, unanimous in our efforts, let us all, feeling, as members, our individual responsibility, endeavour to bear our part, to lend our aid, towards the common weal. Thus—and thus only—we shall succeed.

We have launched our vessel in safety upon a calm but treacherous sea. The auspicious day of her departure has arrived. Decked with colours, amid the congratulations of an admiring multitude, she sails forth. Strong hands, stout hearts are needed to guide her through the shoals and quicksands of the channel. May prosperity await her.

"Let us then be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labour, and to wait."—Longfellow.

1 Rayer, Notta, Hasse.
2 Long of Liverpool, Lond. Med. Gazette, 1840: Curling Med.-Chur. Transactions. 2nd series. Vol. VII. Erichsen, Lond. Med. Gazette. 1843.
3 Alcock in Cyclop. of Anat. and Physiol. Vol. II.
4 Henle, Anatomie Generale. Vol. II.
5 Notta. 6 Galliet.
7 Comptes renduz de la Soc. de Biol., Dec. 1851. Comptes rendus de l'Acad. des Sciences, 1852.

Correspondence.

NEW WORDS IN MEDICAL READING!

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—I am for ever getting puzzled of late with new words occurring in my medical reading, for which I can find no meaning anywhere; the English Dictionary, Copland's Dictionary, the Surgical Dictionary, any dictionary knows none of them. I am kept back, so that I have not up to this hour got on further than your journal of January 8th inst., and I am now entangled in Dr. Moore's case of "Epigastric Neuralgia with Spanæmia,"

1 Abercrombie on the Intellectual Faculties.
2 Sir Charles Bell on the Hand.

whatever this ungenerous term means. A few pages previously Dr. Kennedy coined three words which, of course, will hereafter be picked up and occur in our light reading, as so much Arabic or Hindostani to many. In your journal of the previous week I was knocked all of a heap by that poxy word, Enthetic, used by somebody. When examined for my M.D. at the University of London, I was very nearly rejected for using the word "Paresis," as signifying partial paralysis; my examiner, Dr. Tweedie, insisting there was no such word, although I pledged my honour I had found it in Dr. Mason Good's "Practice of Physic." Since then I have often met with it in the journals, and perhaps so has Dr. Tweedie, but what notion can he or anybody have of Dr. Moore's "Atelectatic Focus," of the extent of a "Walnut Sclerotic," or, though not so hard, his "Ampullular Dilatations?" Now that medical pedantry has become rampant, will you kindly say if any investment made in medical glossaries, such as Fowler's or Mayne's, would at all help a man so bewildered, and if so, what investment would you recommend?—I am, sir, yours faithfully,

J. Carey, M.D.

Taunton.

SEA-SIDE DRAINAGE.—WORTHING.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—To the article that appeared in the Medical Press and Circular of the 4th of December, 1867, on the Drainage, Water Supply, and system of irrigation adopted at Worthing, I am sure I may trust to your spirit of fair play to insert the following reply.

1st. *As to the fact of the sewage wells and the wells from which the supply of water is obtained, being within fifty feet of each other, and therefore an assumed risk of percolation from the former into the latter. This is practically altogether impossible.* The walls of the sewage wells, which are thirty feet deep, are constructed of the best bricks, set in cement, and have a thickness of 18 inches at their base. The stratum in which their bases are set is not chalk but marl, a mixture of chalk and clay, of several feet in thickness. This material is so well-known for its retentive power that it is largely used in the neighbourhood for the formation of the beds of ponds, &c., so that, if by any possibility there were a chance of the escape of sewage through the walls of the sewage wells it would be effectually prevented from passing farther, either in a downward or lateral direction by this stratum of marl; moreover, between this and the source of our water supply, that is in the perpendicular direction, there is a distance in the instance of the old well of 335 feet, and the new well of 365, the former being 365 feet deep, and the latter 395, a distance I apprehend, if there were any escape through the walls of the sewage wells and the marl, sufficient to purify even sewage; practically, therefore, in the perpendicular direction, contamination in the minutest degree of the source of our water supply is impossible. The sewage well is, likewise, every day completely emptied.

With respect to the contamination *laterally* of the water in the wells, this is equally impossible, for the force of gravitation in this direction would be inoperative, and if any escape of the sewage were possible through the sides of the sewage well, it would have to pass through the fifty feet of impervious marl before it reached the water wells, and here there is an insurmountable obstacle in the shape of an air-tight iron cylinder in the instance of the old well of seventy feet in depth, and of the new one of one hundred feet. I repeat, therefore, that the contamination of our water supply by *the* sewage is altogether impossible.

But if any further evidence be required of the admirable quality of the water and its freedom from contamination, it is found in the analysis of Professor Redwood in 1865, which I subjoin.

"*Report on the results of a chemical analysis of the Worthing Well Water, in December*, 1865.

"The water as received was free from colour, perfectly bright and well aerated. One Imperial gallon contained 22·37 grains of solid matter.

"The hardness of the water in its natural condition was 16·3 degrees; but after boiling for thirty minutes the hardness was reduced to two degrees.

"The organic matter present in one gallon was oxidised by 0·0077 gr. of oxygen.

"Comparing these results with those obtained by Mr. E. C. C. Stanford some years back, it will be seen that very little change has taken place in the composition of this water, the total amount of saline matter per gallon differing by less than two grains. The principal alteration is in the amount of Carbonate of Lime, which has increased; but the quantity of the Sulphates and Chlorides of Calcium and Magnesium has diminished. This change is rather advantageous than otherwise, for it is the latter salts which give permanent hardness to the water, the hardening influence of the Carbonate of Lime being readily removed by boiling. Thus the hardness of the water in its natural condition is at present two degrees greater than it was in 1857; but its permanent hardness, that is to say, its hardness after the Carbonate of Lime has been precipitated by boiling, is two degrees less.

"The most valuable character of this water, in a sanitary point of view, is its comparative freedom from organic impurity. In this respect it will bear comparison with the best potable waters known.

"The general quality of this water may be better judged of by comparing it with the waters supplied to the metropolis. Analyses of these waters were made by Dr. Frankland, and published in the Registrar General's returns, during the same month that the sample of Worthing water was drawn for this present analysis, that is to say, December, 1865.

December, 1865. Names of Water Companies.	Solid Matter in 100,000 parts of the Waters.	Organic and other Volatile matter included in col. 1.	Amount of Oxygen required for oxidation of Organic Matter.	Degrees of Hardness. Permanent.	Temporary.	Total.
Thames Water Comp's.						
Chelsea	28·00	1·52	·1942	7·0	9·1	16·1
West Middlesex	28·91	1·49	·1045	6·8	11·9	18·7
Southwark and Vauxhall	31·32	1·98	·1972	7·4	11·5	18·9
Grand Junction	29·51	1·91	·1722	7·4	11·0	18·4
Lambeth	29·06	1·08	·0842	8·8	7·6	16·4
Other Water Comp's.						
Kent	37·45	0·61	·0070	8·8	17·4	26·2
New River	30·02	0·54	·0396	7·0	14·1	21·1
East London	33·90	1·56	·1274	7·2	15·0	22·2
South Essex	38·10	0·86	·0112	5·8	19·0	24·8
Worthing Well	31·96	0·36	·011	2·9	20·4	23·3

"The Results in this table are given in 100,000 parts, and not in grains per gallon.

"T. Redwood, Ph. D.,
"Professor of Chemistry to the
"Pharmaceutical Society of Great Britain."

You then say the well is in rather an indifferent condition. This is so in the instance of the old one. The bore after ten years of service having become somewhat obstructed, and the supply of water therefore diminished, but this in no way interferes with the *quality*, and the short supply is already remedied by the new well now being sunk, and which will be completed in a very few days,[1] the bore of which is four times as large as the old one. From this well, it is the opinion of our consulting engineer, C. E. Rawlinson, Esq., that the supply of water will be ten times as much as from the old one, and equal to every requirement of the town, allowing for its steady increase, for many years to come.

2. *With reference to the scheme of irrigation.*—To the *economical* aspect of this you appropriately observe you have paid less attention than to the *sanatory*. I will therefore merely remark that not only the Italian rye grass but oats, roots, and cabbage can be grown with profit, and that the company is fairly remunerative; last year, I am informed, it paid £10 per cent. but that this year it will probably be less.

With regard to its *sanatory* aspect, it is, I assume, a recognized principle in sanatory science equally with that of medicine, that a poison however potent, whether this be that of typhoid fever, ague, or even cholera, that there is a point of dilution or diffusion at which the poison ceases to produce any effect whatever. This must be so. Guided by this principle, the sewage is conveyed seven-eights of a mile from the works in iron pipes hermetically sealed, and at the time the company was formed, was carried sufficiently far from the town to be free from all risk. Building operations, however, have lately been extended in that direction and the question has recently

1 Since writing the above the new well has been completed, and the supply of water is most copious and admirable in quality.

more than once been raised, whether the time must not soon come when the irrigation of these lands, if done at all, should not be carried on at a greater distance than at present. There are three medical men on the Local Board of Health, all of whom, I believe, thoroughly comprehend this subject, and the Board, you may rest assured, will take care whilst exercising the utmost consideration for the interests of the proprietors, that the health of the town shall be the primary consideration, and your observations will support me in the opinion I have for a long time held that with us—*a Health Resort*—there should have been no irrigation at all.

When it is a question as in an inland town of the polution of a river or the irrigation of the land, of the two evils the latter may well be selected, but in our case, where the arrangement was originally made for discharging the sewage into the sea, no consideration of profit or experiment by individuals ought to have allowed this plan to have been departed from. I may say, however, that the design of the whole of these works have been, from the commencement, under the superintendence of the eminent civil engineer, C. E. Rawlinson, Esq., Chairman of the Royal Commission, for inquiring into the polution of rivers, and the best means for the disposal of the sewage of towns; and, whilst he is convinced that the contamination of the water with the sewage at the works does not now, or ever can take place (and in this I fully concur), he is equally convinced that the irrigation of the land at the present time is in no way a source of danger to the health of the town. I am persuaded, however, that at an early date (as soon as it can be done with justice to the proprietors, who, with laudable zeal, were anxious to try the experiment of what may almost be considered a national question, viz., the application of the sewage of towns to the fertilization of the land), the irrigation of these lands will be discontinued, and the whole of the sewage, as formerly, be discharged into the sea, far away, and to the east of the town.

On the question of the contamination of the surface wells, with the sewage used for irrigation, this is equally impossible with the water at the works. The irrigation is carried on to the east of the town, at a situation directly opposite to the supply of water to these wells, and from the configuration of the country the surplus sewage, if any, would be carried still further away, whilst the supply of water to the surface wells is from the valley of the Arun, a most extensive source, lying upwards of ten miles off, to the west and north-west, for it has been invariably found that after periods of drought, the surface wells never rise till this valley becomes flooded by the overflowing of the banks of the river, and with respect to the supply of water to the deep wells, this is so permanent and copious, when the bore is in good order, that it must be from a far more extended source than even this.

Compared with its population, it may safely be affirmed, that Worthing is in the van of all other towns for the costliness and perfection of its system of drainage and water supply—privies have been abandoned throughout and water closets substituted, even for the use of the poorest houses—but from its novelty, difficulties have necessarily from time to time arisen, but during the ten years that these works have been in operation, no absolute failure has taken place with the exception of one day in 1865, when, during an unprecedentedly heavy storm, the pumps were unable to lift the storm waters and the sewage together, the result was they backed through the sewers into the town, and flooded the basement floors of many of the houses, causing an outbreak of fever. This cannot occur again, for the bulk of the storm waters now pass away directly into the sea through other channels; but even should that portion of these waters, which find their way into the sewers, be greater than the pumps can remove from the sewage well, an outfall sewer has been constructed in connection with it, by which they will be conveyed away instead of being thrown back upon the town.—I am, sir, your obedient servant, WALTER G. BARKER, M.B.Lond.

The Steyne, Worthing, Jan. 17, 1868.

THE Missouri Medical Association was duly resuscitated on the 12th of December, after a long sleep of ten years, and has inaugurated some wise measures relating to the future prosperity of medicine in the State. A communication from the St. Louis Medical Society, asking of the Legislature a Board of Medical Examiners to be appointed by the Missouri Association, with power to grant licenses, was adopted, and a committee appointed to prepare a suitable memorial. They also endorsed most emphatically the stand taken in the matter of medical education by the recent Convention of Medical Teachers.

THE BRITISH LYING-IN HOSPITAL AND THE FEMALE MEDICAL COLLEGE.

A COMMUNICATION to a contemporary from Dr. Henry E. Eastlake, the Physician to the Hospital, discloses a most unsatisfactory result of the connection of that institution with the Female Medical College, and affords a cogent warning to the profession not to place themselves in the position of alliance with the administrators of that establishment. The facts, as narrated by Dr. Eastlake, are in the main not controverted. A patient of the hospital having been seen by Dr. Eastlake, and considered in favourable progress of parturition, was afterwards visited by two pupils of the Female Medical College, midwives in the hospital, and the application of the forceps surreptitiously attempted by them in Dr. Eastlake's absence. An investigation was held by the Board, and the verdict delivered was, strange as it may appear, one of censure on the pupils, *and a request for the resignation of Dr. Eastlake.* In explanation of this inconsistent decision, that gentleman states that a short time previously a number of the party who were favourable to the proposal for amalgamating the Female Medical College and the Hospital, suddenly and simultaneously made themselves annual governors of the hospital by a payment of two guineas each, and by a *coup d'etat* ousted the medical officers from their share in the hospital administration. Dr. Eastlake had firmly expressed himself as against the amalgamation, and the evident deduction is that this occasion was seized to get rid of him. If the ephemeral governors succeed in forcing Dr. Eastlake to resign, which we don't anticipate, they can only do so in disregard of public and professional feeling—a course which cannot fail to bring the British Lying-in Hospital to a level suitable for its incorporation with the Female College.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Thursday, January 30, the following gentlemen were admitted members of the College:—George Charles Bright, M.B. Oxon, 8, Southwick-crescent, Hyde Park; John Cavafy, M.B. Lond., 26, Pembridge-gardens, Bayswater; Charles William Cooper, M.B., Cantab., 2, Grenville-street, Brunswick-square; Michael Comport Grabham, M.D. Aberdeen, Madeira; Alexander Silver, M.D. Aberdeen, 8, Gray's-inn-place. At this meeting the following were duly admitted licentiates of the college:—Joseph Groves, Carisbrook, Isle of Wight; Stephen Wootton Bushell, Bickley.

UNIVERSITY OF OXFORD.—The Regius Professor of Medicine (Dr. Acland) proposes to resume a course of Clinical Instruction at the Infirmary every Tuesday and Saturday, at 11 o'clock, beginning on Saturday, February 15. The Professor will be in his rooms at the Museum every Thursday, at 12 o'clock, beginning on Thursday, February 13, for the purpose of aiding members of the University who may need advice or help in any department of medical study. Gentlemen who have passed Moderations and are studying for the Natural Science School, or have passed it, can attend the clinical course.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the quarterly examination, held on the 29th January, the following gentlemen passed their preliminary examination, viz.:—

John G. Allen, Robert H. B. P. Anderson, James R. H. Anderson, Arthur E. J. Barker, William H. Barr, Thomas Baly, John T. B. Bookey, John T. Burgoyne, Henry Byrne, George G. Cuppage, Charles E. Daly, Charles J. Diamond, John J. C. Doherty, William B. Drew, James W. Gamble, William A. G. Gilligan, Charles R. M. O. Hearn, Daniel J. Hearn, Stephen F. Hill, Lewis A. Irving, John L. Kealy, Daniel J. Kean, Michael Matthews, James M'Nally, Joseph M. O'Brien, Charles O'Connor, Richard C. M. Pooley, John C. Quinn, Nicholas S. Smith, William P. Sullivan, Francis J. Tirney, Edward Williams, and Patrick J. H. Williams.

NOTICES TO CORRESPONDENTS.

Proofs reaching authors in England on or before Friday morning, are expected to be returned to the Editor, at the office, 20, King William-street, Strand, W.C., before five P.M., on Friday afternoon. Proofs reaching authors on Friday evening or Saturday morning *must* be returned to the office by two P.M. on Saturday, which is an early closing day. Duplicate proofs are sent to authors, in order that they may correct and return one copy, and keep the other for private use. Contributions should be LEGIBLY written, on one side of the paper *only*.

All Communications and Letters must be authenticated by the name of the writer, though not necessarily for publication.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 12, 1868.

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Lecture.

THE CANTOR LECTURES
AT
THE SOCIETY OF ARTS.
Dr. LETHEBY'S
FIRST LECTURE ON FOOD.

VARIETIES OF FOOD—THEIR CHEMICAL COMPOSITION AND NUTRITIVE VALUE.

(Continued from page 108.)

Meat.—There is hardly a class of individuals, however poor they may be, who do not make a strong effort to obtain meat. It would seem, therefore, to be a necessary article of diet. In this metropolis the in-door operatives eat it to the extent of 14·8 ozs. per adult weekly; 70 per cent. of English farm labourers consume it, and to the extent of 16 ozs. per man weekly; 60 per cent. of the Scotch, 30 of the Welsh, and 20 of the Irish. The Scotch, probably, have a larger allowance than the English, considering that braxy-mutton is the perquisite of the Scotch labourer; but the Welsh have only an average amount of 2½ ozs. per adult weekly; and the Irish allowance is still less.

It is difficult to obtain accurate returns of the quantity of meat consumed in London; but if the computation of Dr. Wynter be correct, it is not less than 30¾ ozs. per head weekly, or about 4½ ozs. per day for every man, woman, and child. In Paris, according to M. Armaud Husson, who has carefully collected the *octroi* returns, it is rather more than 49 ozs. per head weekly, or just 7 ozs. a day. We are not, therefore, such large meat eaters as the French.

Butchers meat differs very much in nutritive value according to the proportions of fat and lean; and there is a strong prejudice in favour of beef as the strongest kind of meat. In reality, however, the lean of all meat is of nearly the same nutritive power, provided it is digested; but in this respect there are large differences. The flavour also varies with the nature of the animal, and with its mode of feeding. Pampas-pig, and indeed most wild swine, are horribly rank, but by proper feeding they become delicious. In store animals the proportion of lean is always greater than the fat, and the solid matter does not amount to more than 28 or 29 per cent.; not so, however, in fat animals, for then the fat is largely in excess of the lean, and the solid matters make up about half the total weight. The tendency, indeed, of the fattening process is to substitute fat for water in the carcass; and the quality of the meat depends on the intimate intermixture of fat with the muscular tissue. All animals are not alike in their method of depositing fat, for some put it upon the surface of the body, and others accumulate it among the viscera. The art of breeding and feeding stock is to overcome both of these tendencies, and at the same time to produce a fat which will not melt or boil away in cooking. Oily foods have always a tendency to make soft fat.

The average proportions of fat and lean in the offal and carcasses of animals are shown in Table No. 6 (p. 130), and Table No. 3 (p. 84) exhibits the proportion of the principal nutritive constituents in ordinary joints of meat. Lean meat is evidently deficient of carbonaceous matter, and this is best supplied in bread or potato; but in fat-meat, considering that the nutritive power of fat is twice and a-half as great as that of starch or sugar, the carbonaceous matter is often in excess of the right proportion; it is remarkably so in pork, which will bear dilution with the flesh of rabbit, poultry, and veal.

The amount of bone in meat varies: it is rarely less than 8 per cent. In the neck and brisket of beef it is about 10 per cent., and in shins and legs of beef it amounts to one-third, or even half the total weight. The most economical parts are the round and thick flank, then the brisket and sticking-piece, and lastly the leg. In the case of mutton and pork, the leg is the most profitable, and then the shoulder.

Horse-flesh is hardly known in this country, except as canine food; but on the Continent, and especially in Germany, Belgium, and Switzerland, it is regularly sold in the public markets, and is considered superior to beef. Possibly we have often eaten it on the Continent without knowing it. A *Châteaubriand*, or double beef-steak of Paris, is said to be best of horse-flesh; and no doubt the frequenters of the *restaurants* of Paris have unwittingly acquired a fondness for it, and have relished it as good beef. A story is told by a writer in the *Saturday Review* of a Frenchman who blandly remonstrated with an Englishman for his scorn of French beef. "I have," he said, "been two times in England, but I navère find the bif supérieur to ours. I find it vary conveenient that they bring it you on leetle pieces of stick, for one penny, but I do not find the bif superieur." On hearing which, the Englishman, red with

TABLE No. 6.—PERCENTAGE PROPORTIONS AND NUTRITIVE VALUES OF THE CARCASS AND OFFAL.

	In Animal.		Water.		Nitrogenous.		Fat.		Salts.	
	Carcass.	Offal.	Carcass.	Offal.	Carcass.	Offal.	Carcass.	Offal.	Carcass.	Offal.
Store Oxen	59·3	38·9	60·8	—	18·0	—	16·0	—	5·2	—
Half Fat do.	—	—	54·0	59·6	17·8	20·6	22·6	15·7	5·6	4·1
Fat do.	59·8	38·5	45·6	52·8	15·0	17·5	34·8	26·3	4·6	3·4
Fat Heifers	55·6	41·3	—	—	—	—	—	—	—	—
Fat Calves	63·1	33·5	62·3	64·9	16·6	17·1	16·6	14·6	4·5	3·4
Store Sheep	53·4	45·6	57·3	63·7	14·5	18·0	23·8	16·1	4·4	2·2
Half Fat do.	59·0	40·5	49·7	61·1	14·9	17·7	31·3	18·5	4·1	2·7
Fat do.	—	—	39·7	55·2	11·5	16·1	45·4	26·4	3·5	2·3
Very Fat do.	64·1	35·8	33·0	45·1	9·1	16·8	55·1	34·5	2·8	3·6
Fat Lambs	—	—	48·6	58·5	10·9	18·9	36·9	20·1	3·6	2·5
Store Pigs	79·3	18·8	55·3	67·9	14·0	14·0	28·1	15·0	2·6	3·1
Fat do.	83·4	16·1	38·6	59·4	10·5	14·8	49·5	22·8	1·4	3·0
Mean of all	64·1	34·3	48·4	53·8	13·5	17·2	34·4	21·0	3·7	3·0

astonishment, exclaimed, "Good God, sir, you have been eating cat's-meat." To be serious, however, there is no reason why the flesh of healthy horses should not be used as human food. It has many powerful advocates, among whom is the great naturalist, Geoffrey St. Hiliare.

Venison and the dark flesh of other wild animals differs from butcher's meat in the circumstance that it is leaner, and that it contains more blood; but its nutritive power, when properly cooked, is not inferior to that of beef or mutton, and it is always more digestible.

The offal of meat constitutes about one-third of the entire weight of the slaughtered animal. It consists of the blood, the head and its contents, the tongue and brain, the heart and lungs, the abdominal viscera—as the diaphragm, the liver, spleen, pancreas, stomach, intestines, and reproductive organs, and the feet, tail, and skin. In the case of the pig, the skin and head are part of the carcass.

Nearly all these, when properly treated, are good for food. The *blood* of the pig is mixed with groats and fat, and converted into *black-pudding*, which contains about 11 per cent. of nitrogenous matter. The *stomach* of the bullock is cleaned and boiled for *tripe*, which contains 13 per cent. of albumen and 16 of fat. The *heart*, *lungs*, and *pancreas*, which constitute about 7 per cent. of the live weight of animals, are as nutritious as lean meat. The *head*, especially, of the ox, makes good soup; but it requires long boiling to extract the nutriment. Boiled for 8 or 9 hours, it will yield one-fourth of its weight of gelatine, besides which an ox-cheek will furnish about 4 lbs. of good meat. Bones also contain much fat and nitrogenous matter, which they give up when broken small and boiled for many hours. Six pounds of bones are equal to one of meat for nitrogen, and to nearly two lbs. of meat for carbon.

Bacon differs from fresh meat in the relatively large amount of fat and small proportion of water. It is an almost universal article of diet among the labouring classes. 74 per cent. of farm-servants use it to the extent of from ¼ lb. to 2 lbs. per adult weekly. 69 per cent. of the Scotch use it, and 40 per cent. of the Irish. It is preferred to butcher's meat for many reasons—as that it goes further, especially with children, who don't generally like fat; it has more relish; it is easily cooked, and suffers less waste in cooking; besides which, it is easily kept, and is always handy. Preference is nearly always given to the English bacon, notwithstanding that it is double the price of American, for the flavour is better, and it does not boil away in cooking. No doubt the inferiority of American bacon is due to the method of feeding the pigs, for they run wild and eat large quantities of acorns and oily nuts. Good bacon should not lose more than from 10 to 15 per cent. in cooking.

The nutritive value of both green and dried bacon are shown in tables No. 3 and No. 4. Their peculiarity is the large amount of carbonaceous matter they contain as compared with nitrogenous. Calculated as starch, it is as 20 or 24 to 1. Hence it is that it will improve the value of substances rich in nitrogen, as eggs, veal, poultry, beans, and peas.

Poultry and the *white meat* of *rabbits* are not of themselves very nourishing. They contain too much nitrogenous matter and too little fat. In the case of aquatic birds, as the goose and duck, the fat is more abundant; but it contains certain flavouring matters which are not easy of digestion. The darker flesh of game is also somewhat indigestible, and requires management in its culinary treatment.

Fish is not a favourite article of diet with the labouring classes, unless it is salted or smoked, and then it is chiefly used for its flavouring qualities. There is a prejudice that it has no nutritive strength, and it arises, perhaps, from the circumstance that it does not easily satisfy hunger, and is quickly digested, but the inhabitants of our coasts use it largely as food.

The nutritive value of the white varieties of fish, as whiting, cod, haddock, sole, plaice, flounder, and turbot, are shown in the Tables No. 3 and No. 4, and it will be remarked that they contain only about 22 per cent. of solid matter—18 of which is nitrogenous. They want butter, therefore, to increase their nutritive value.

Mackerel, *eels*, and *salmon*, are, however, richer in fat, for the former contains about 7 per cent. and the latter 6, while the oily matter of eels amounts to nearly 14 per cent. The same is the case with the sprat, the herring, and the pilchard, and with most of our fresh-water fish.

All fish are in their best condition at the time of the ripening of the milt and roe, for not only are they fatter at that time, but when cooked they have a better flavour, and the flesh is solid and opaque. On the other hand, when they are out of condition the flesh is semi-gelatinous and watery.

Shell-fish of all descriptions have nearly the same nutritive values. They contain about 13 parts of solid matter in the hundred, and this has the composition of white fish. Their digestibility varies—*mussels*, *limpets*, and *whelks*, being rather hard of digestion, while *scallops*, *cockles*, *periwinkles*, *lobster*, and *crabs*, are, perhaps, a little more easily digested, and *oysters* still more so. None of them are suited for delicate stomachs, although the poorer inhabitants on the coast eat them freely; and vineyard snail on the Continent, and even *slugs* in China, have a reputation for delicacy and nutritive power.

Eggs contain about 26 per cent. of solid matter, 14 of which is nitrogenous, and 10½ carbonaceous or fatty. The *yelk* is the part which contains the fat, for it there amounts to nearly 31 per cent., while the *white* of the egg, which is entirely free from fat, is the richest in nitrogen—the albumen amounting to 20·4 per cent. Altogether, however,

eggs are very deficient of carbonaceous matter, for, calculated as starch, it is only in the proportion of 1·75 to one of nitrogenous. Hence it is that eggs consort well with oil in salads, with fat bacon, and with all kinds of farinaceous matters in puddings.

Fat of some descriptions—as *butter*, *lard*, *suet*, or *dripping*, is universally consumed. In many cases it exists in sufficient quantity in the food, as in bacon and fat-meat, but when this is not the case, it is invariably supplied from some other source. 99 per cent. of farm labourers use fat of some sort—butter or dripping, to the extent of 5½ ozs. weekly per adult. It is difficult to say how much is really required by the human system, but looking at the proportion in milk, it would seem to be not less than 28 per cent. of the dry solid food. The fats in common use contain about 80 per cent. of real fatty matter, the rest being water and salt, and although butter is the fat ordinarily purchased, yet dripping is equally valuable, and so also are the vegetable fats of the tropics. *Cocoa* and *chocolate* owe their chief value as foods to the fat they contain. Cocoa is composed of 50 per cent. of solid fat, called cocoa butter, and chocolate is a sweet preparation of it.

Of liquid articles of diet, *beer* and *porter* stand first in nutritive value. They contain about 9 per cent. of solid matter, 8¾ of which are sugar and gum. Their nutritive power is not, therefore, great; and yet, according to Liebig, whenever beer and porter are not used, there is always a larger consumption of bread.

The nutritive functions of *tea* and *coffee* are hardly understood; for although they are largely used, and as if by an instinctive craving, yet their actual nourishing power is insignificant. I shall deal further with this subject hereafter.

The last constituent of food that we have to consider is saline matter. Broadly, it may be stated that we require *phosphates* and *sulphates* of *potash*, *lime* and *magnesia*, and that we also want a still larger proportion of *common salt*. In most cases the phosphates and sulphates are in sufficient quantity in ordinary foods; in fact, Mr. Lawes found in his experiments on the fattening of animals that for every single part of saline matter retained in the system of the pig, there were from 14 to 15 parts in the food; not that the whole of this was lost, for probably it performed important functions in the processes of assimilation and secretion. Common salt, however, is not present in the food to any large extent, and, therefore, it must be added to it.

And now, before leaving this part of the subject, let us pause to consider the vast machinery which is in operation to supply the food to this metropolis. At the present time over three millions of people have to be daily fed; and yet so regular is the supply that no one considers even the possibility of its failing. On the other hand, there is no redundancy; and not only does this supply regularly reach the metropolis, but it is distributed to our very doors. About 4200 tons of fish; over 4000 sheep; nearly 700 oxen; about 90 calves; 4000 pigs, including bacon and hams; not less than 5000 fowls, and other kinds of poultry; besides a million or so of oysters; and eggs innumerable, with flour enough to make nearly a million quartern loaves: and vegetables, butter, and beer in proportion, are daily brought to this city. "Imagine," as Archbishop Whately says, "a Head Commissioner entrusted with the office of furnishing all these things regularly to the people. How would he succeed?" And yet all this goes on with the regularity and precision of a machine—without Government or even municipal interference, but simply through the magical power and unfettered action of free trade.

The lecture was profusely illustrated with specimens of foods from the magnificent collection in the Economic Museum of Mr. Twining, who kindly lent them for the occasion.

Original Communications.

ANATOMICAL NOTES.

By ALEXANDER MACALISTER, L.R.C.S.,
DEMONSTRATOR OF ANATOMY, ROYAL COLLEGE OF SURGEONS, IRELAND, SURGEON TO THE ADELAIDE HOSPITAL.

I.—VARIATIONS OF THE RECTUS FEMORIS MUSCLE.

It is a general rule, from which there are but few departures, that muscles which have a definite unvarying action are the least liable to abnormal arrangements; but we find a few exceptions in the cases of those parts which in lower animals exhibit different and variable appearances, unlike the conformation of the normal human type. Among these the rectus femoris holds a prominent place, for, though always developed as an extensor of the knee, its absolute point of origin is occasionally the subject of variety in the animal kingdom. In man we find it to be constant in its position and direction, and usually invariable in one of its origins, namely—that from the anterior inferior iliac spine. Its curved or reflected origin may vary in length from half-an-inch to an inch and a-half, or even two inches and a-quarter; it may be completely continuous in point of origin from the spine of the ilium to the acetabular notch, exhibiting no sign of an interval, or the heads may be separate for an extent double the ordinary interspace. The curved origin may be above and unconnected with the capsular ligament of the hip, it may arise inseparably united to that ligament, or it may spring from the bone betwixt two laminæ of the ligament. The more singular deviations which I have met with are, first, the existence of a supernumerary straight origin in the form of a fibrous band springing from the anterior superior spine of the ilium. I have seen this twice—in one case as a weak fascial slip, in the other as a strong tendon; the second is the existence of a supplementary band to the curved head, which, starting from a point on the outer edge of the anterior surface of the femur about an inch below the summit of the great trochanter and in contact with the origin of the vastus externus in the situation of the rarely developed third trochanter, ran inwards and upwards, to be connected with the curved head very near its commencement; this slip thus formed an angle of 135° with the curved head, and it crossed the capsule of the hip-joint to which it had no connection. It was covered by the anterior border of the gluteal muscles, and acted as an accessory ligament of the hip somewhat similar in direction to the superior ilio-femoral accessory of Humphry, which was otherwise deficient in this subject.

The rectus femoris is homotypical with the long head of the triceps extensor cubiti; and the latter presents us often with a duality of origin nearly as distinct in degree as that of the rectus. I have seen it connected with the inferior gleno humeral ligament, a condition exactly accordant with the lower extremity arrangement just noticed.

II.—DOUBLE URETERS.

In a subject which I dissected within the past session, 1866-7, two ureters started from the left kidney, coalescing after a course of two inches, into one tube, which was normal in its course.

III.—VARIATIONS IN THE BRANCHES OF THE ABDOMINAL AORTA.

One subject dissected by me in the Royal College of Surgeons Anatomy Hall, during the session 1865-6, exhibited the following peculiarities:—The gastric artery came off as a separate branch from the aorta, but soon gave off a small right division, which passed in the layers of the gastro-hepatic omentum to the left extremity of the portal fissure of the liver; the other branch was normal; the cœliac axis, arising directly below the gastric, but separated from it by the upper connecting fibres of the solar plexus, divided into two the hepatic and splenic vessels, which were normal in course and distribution; lastly, the superior mesenteric artery, which arose at the root of the

cœliac axis in passing downwards in front of the pancreas, gave off a large hepatic vessel, which entered the right extremity of the transverse hepatic fissure.

The arrangement of the cœliac axis in this case is similar to that noticed by Flood, and the position of the origin of the superior mesenteric is nearly the same as in the instance recorded by Geddings, who has also noticed the origin of the gastric as a separate trunk, along with the phrenics, an arrangement which did not occur in this instance. The origin of an accessory hepatic artery from the two abnormal sites noticed above, has been already described, but it is a singular fact to find the occurrence of so many varieties in a single region.

In another subject, three renal arteries, branches of the aorta, supplied the left kidney, one above and one below the normal sites, the upper and lower going into the extremities of the gland.

IV.—VARIETIES OF ARRANGEMENT OF THE HEPATIC LIGAMENTS.

The folds of peritoneum so called, may vary in position. Thus, in one instance, a young boy, about 15 years of age, the left lateral ligament was attached to the abdominal wall, in front of the spleen, which it covered, and to which it formed an anterior relation. The point of attachment was opposite the level of the cartilage of the tenth rib. In this subject the œsophagus lay directly behind the coronary ligament, which was unusually extensive, and was accommodated by a special groove in the thick edge of the liver. The liver was but slightly enlarged, and lay much nearer the middle of the abdomen than usual.

V.—VARIETIES OF THE SUPERIOR THYROID ARTERY.

This vessel was absent in one subject on both sides, its place being supplied by a large inferior thyroid. This variety was observed by Quain. In another instance, an old female, the artery arose from the common carotid four lines below the point of its bifurcation, and passed inwards, giving off only a superior laryngeal branch and its terminal vessels to the thyroid body. No hyoidean nor sterno-mastoid branches existed, but the place of the latter was supplied by a branch of the occipital, and the inferior or crico-thyroid branch was only present on the right side. The same subject had the facial and lingual arteries arising by a common trunk, and the latter was extremely long and tortuous. The inferior palatine and tonsillitic arteries arose by a separate trunk from the external carotid, beside the origin of the former, and on the right side the occipital and posterior auris were united for about an inch.

VI.—ABNORMAL POSITION OF THE PNEUMOGASTRIC NERVE.

In the neck of an old female, on the right side, the carotid artery presented a sharp flexure, about an inch and a-half below its bifurcation. Over this the pneumogastric nerve crossed, at first from without inwards, and then crossing again completely to the outside. That this was the actual condition of the vessel during life was evident, as the nerve was connected to the anterior surface of the artery by a process of the sheath, and could not be replaced in the usual position until the connecting bands of the sheath had been divided. The importance of the knowledge of the possibility of this occurrence is very great, as it might lead to a serious complication in the operation of ligature of the carotid artery.

NOTES OF A CASE OF TUMOUR OF THE NECK.

By JOHN STUART VESEY, M.D., F.R.C.S.I.,
MEDICAL OFFICER TO THE MAGHERAFELT UNION INFIRMARY, ETC.

Rose Magill, aged 17, of fair complexion, was admitted into the Magherafelt Union Infirmary, with a tumour the size of the clenched fist occupying the left side of the neck. States that three years before admission she was affected with a sore throat, from cold, which she neglected; at this time the glands on both sides of the neck were enlarged and moveable. These disappeared, except one on the left side, which continued gradually to enlarge without pain. Says she often used to touch them with her fingers, but did not apply for any relief for the first year. At the end of that period she applied an ointment of a brick colour, which irritated the skin and caused it to desquamate; it became more moveable, but still increased in size.

The tumour extends downwards and forwards along the side of the neck, of an oval shape, the base below reaches within about two inches of the sternum. Its upper extremity was within an inch and a-quarter of lower part of the ear, and immediately behind the angle of the lower jaw, and appeared to run very deeply. Its posterior margin bounded by the sterno-mastoid muscle, and external jugular vein, its anterior rested near the larynx. The integuments were not discoloured. The tumour was quite moveable under the integuments, except its neck, which seems very deeply fixed. It had a firm feel and slightly elastic. The carotid artery could be felt under it towards its anterior margin. There is no difficulty of breathing or swallowing.

An oblique incision was made downwards and forwards over the long axis of the tumour to the extent of nearly three inches; its upper end was immediately in front of the vein, and close to the angle of the jaw; its lower extended to within about two and a-half inches of the sternum. The skin, &c., being divided, the tumour was cautiously dissected, and its lower part and sides were removed first, the knife being kept close to the tumour. The tumour at the same time was pulled out. The neck ran very deep, and was with difficulty removed. She lost about three ounces of blood, but no artery required ligature. There was some venous hæmorrhage from the lower part, which was stopped by a pressure.

The operation was very tedious. She got somewhat pale, but bore the operation well. Two points of interrupted suture were applied, and strips of adhesive plaister, and a compress at either side of the incision, and a bandage over all.

Evening of operation.—Great thirst; considerable pain in the neck; bowels not opened, but they had been well evacuated two days before the operation.

Day after the operation.—Slept none; pain; some swelling and redness in the neck; bowels not moved. Ord.—Lint stuped in water, with the cold off it, to the neck.

Ext. colcocynth. comp. gr. v. every fourth hour. Enema. Haust. ol ricini.

Pulse 104; some thin, sanguineous discharge since the operation.

2nd day.—Removed the sutures; union seems about to take place; some discharge; rests on sound side, with head elevated; bowels well moved and pyrexia relieved.

3rd day.—Doing well; dressed with adhesive plaister, lint, and bandage daily; swelling less; the discharge comes from two points; lips not quite united, but the bottom of wound seems to be so.

In about three weeks after the operation she was able to go home; the wound entirely healed; nothing remains but a narrow red cicatrix, the upper part of which can scarcely be perceived.

Appearance of tumour.—It was entirely surrounded by a thin, firm cyst, which adhered closely to it; loosely attached to it was a gland near the size of the end of the thumb.

On dividing the tumour, it was of a dirty white colour, slightly convoluted, something like the brain, and very firm to the feel.

Hospital Reports.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL PRACTICE.

(Continued from page 115.)

Diseases of the Organs of Circulation.—One case of *disease of the heart* in a man aged 40, was admitted; he had suffered from intense pain down the arm as far as the

elbow for some time ; it had come on without any assignable cause ; was somewhat paroxysmal in character, and was also intermittent, acquiring its greatest intensity at about three o'clock every afternoon. Quinine was ordered. The pain continued unrelieved ; and, as there was no morbid appearance in the arm, he was transferred to the medical wards. Two days afterwards, he was seized with strong convulsions and died. The heart was uncontracted, flabby, and empty : on its anterior surface was a small mass of firmly-adherent lymph. There were large vegetations on the aortic valves ; the mitral valve was blood-stained, and studded with slight fibrinous deposits. The orifices of the coronary arteries were healthy. There was tubercle in the lungs, and the bronchi were full of purulent fluid. Tubercular matter was also found in the kidneys, ureters, bladder, and prostate.

Two cases of *aneurism* were admitted. One of these was traumatic. A week previously, the patient had been cutting broom on a common, when his knife slipped and wounded him in the leg. Hæmorrhage ensued, arrested by a tight bandage, and the wound nearly healed. On exerting himself, the bleeding recurred. When admitted, there was a punctured wound over the inner head of the gastrocnemius muscle, on a level with the inner tuberosity of the tibia. Just below the wound was a pulsating swelling, about the size of a pigeon's egg. The swelling continued enlarging, and was evidently connected with one of the muscular branches of the popliteal artery. A needle was passed beneath the vessel leading to the tumour, and pressure made by means of an elastic band attached to either extremity of the needle, passing over a cork which was placed between the needle and band. The pulsation in the aneurism immediately ceased. Beyond slight pain, no inconvenience followed this operation ; the cut, and the punctures made by the needle readily healed, and in about three weeks the patient was discharged well ; the tumour was less than a third its original size, and was being rapidly absorbed. The other case was transferred from the medical wards, having been supposed to be a case of caries of the spine, which it closely simulated. The man was aged 30, and was admitted with the history that, four years previously, he had fallen a height of fifteen feet. He suffered very little from it till twelve months before admission, when he began to suffer pain in his back. Latterly this had been accompanied by shooting pains in the legs, with twitching of the muscles and cramp. When admitted, there was tenderness on percussion over the last lumbar vertebra and upper part of the sacrum. In the left inguinal region there was a hard swelling, simulating a psoas abscess. After rest in bed for a month the swelling diminished slightly, but the pain became more intense. He was suddenly seized one day with extreme faintness, and died. At the post-mortem examination there was found to be a large quantity of blood in the peritoneal cavity. In the left lumbar region, and extending down into the left iliac fossa, was an enormous aneurism, which was situated behind the left kidney and descending colon : the sac of the aneurism was incomplete behind, the posterior wall of the cavity being formed by the bodies of the vertebræ and lower ribs, which were exposed and eroded, and were in direct contact with the blood in the sac. The sac was full of coagulated blood ; and on its anterior aspect had a lacerated opening about an inch in length, through which the blood had been poured into the peritoneal cavity. The walls of the sac did not appear to be formed of the coats of the aorta, but simply of consolidation of surrounding structures. It communicated with the abdominal aorta by a rounded opening, the size of a shilling, on its posterior wall. On passing the finger through this opening, it immediately came down on exposed bone. The bone in the left iliac fossa was exposed, but the sacro-iliac joint was sound.

Two cases of *nævus* occurred in infants. One, which was situated at the back of the neck, was destroyed by nitric acid ; the other, an inch in diameter on the back, was removed by subcutaneous ligature.

Thirty-one cases of *varicose veins* of the lower limbs were admitted. Of these, a large proportion were complicated with the so-called varicose ulcers. In twenty instances the vessels were obliterated by subcutaneous section, and a permanent cure effected. In the remaining cases the support of an elastic stocking was thought more advisable.

In one instance a clot in a varicose vein formed a tumour rather larger than a walnut, on the inner side of the right leg. It was situated in the course of a large vein, which could be felt entering and leaving it on drawing the tumour upwards and downwards—by which means the vessel was put upon the stretch, and could be felt as a hard cord connected with the tumour. It was dissected out under chloroform.

Five cases of *phlebitis* occurred. In two of these a needle was passed beneath the inflamed vein, and the disease arrested ; suppuration occurred below the needle, whilst the parts above remained healthy. One case, in which the deep veins of the right lower limb were affected, proved fatal. There was no post-mortem examination.

Of diseases of the *lymphatics*, thirteen were cases of inflamed *absorbents*, twenty-four of *suppuratiny glands*—many of which were venereal—and two of *tumours of glands*. The nature of one of these was uncertain ; the other was a case of scrofulous infiltration of the cervical glands, and proved fatal.

Diseases of the Respiratory Organs.—Among these were four cases of *disease of the larynx*. In one of these, in which the affection was of a syphilitic nature, laryngotomy was performed. In one case the patient, a woman aged 48, had suffered from pain and difficulty in swallowing for a twelvemonth ; and for six months she had been unable to swallow solids. On examining the epiglottis with the finger, it was felt to be much enlarged, and roughened on its posterior surface. During deglutition, there was greater pain referred to the neighbourhood of the epiglottis than was experienced when it was touched. The alæ of the larynx appeared to be rather widely separated, and were tender on pressure. There were several enlarged and very hard glands near the angle of the lower jaw on the left side ; the patient had a malignant aspect, both from emaciation and discolouration of the skin. She was discharged as incurable.

(To be continued.)

COOMBE LYING-IN HOSPITAL.

OPERATION FOR VESICO-VAGINAL FISTULA.

By Dr. KIDD.

On 22nd January we had an opportunity of seeing Dr. Kidd operate in the chronic ward of the Coombe Lying-in Hospital, Dublin, for a large vesico-vaginal fistula. The patient, who came from the neighbourhood of Tralee, had been delivered of her second child about five months before. The child had presented by the lower extremities, and after the trunk and arms had been expelled the head remained in the vagina for more than twelve hours, whilst aid was being obtained from Tralee. On the 5th day after delivery a large slough was expelled from the vagina, and the woman has had incontinence of urine ever since. Dr. Kidd placed her lying on a table in the semi-prone position described by Sims, and having brought her completely under the influence of chloroform, introduced the duckbill speculum, and brought a large fistula fully into view. It extended from near the commencement of the urethra to the os uteri, was of an oval figure with the long axis running obliquely from the left side of the os downwards, and to the right, and was an inch and a half long by one and a quarter broad. The upper border was formed by the uterus, and a very narrow rim of the vaginal septum, with the mucous membrane of the bladder swollen and prolapsed. The lower border was drawn into the bladder and hidden from view by a lunated fold, formed by the puckering of a cicatrix.

The operation was performed by first paring the vaginal mucous membrane for half-an-inch in breadth, off the cervix of the uterus, where it formed the upper edge, and then to the same extent round the remainder of the opening, special care being taken to remove it from all the folds formed by the contracted cicatrix. When it seemed necessary in order to secure the correct co-aptation of the edges, the cicatricial bands were freely divided. The edges were now brought together by iron-wire sutures, passed at the upper part, by means of one of Weiss' laterally curved tubular needles, and in the remainder by the plain tubular needle. The sutures were placed within an eighth-of-an-inch of one another, and when necessary they were passed right through the anterior lip of the uterus. In bringing the edges together Dr. Kidd used neither adjustors, plates, buttons, nor splints ; he adjusted the edges, and twisted the sutures with his fingers, stating that he found he could judge much more accurately in this way of the tension of the suture, and the amount of pressure exercised on the edges of the wound. The patient was now removed to bed, and a morphia suppository introduced into the rectum, a gum elastic male catheter passed into the bladder and secured there by a T-shaped bandage. This catheter was of a large size, and had two eyes at a little distance from one another, so as to lessen the risk of its being obstructed by clots, or of its allowing water to accumulate in the bladder.

On the 31st January, the tenth day after the operation, we had again an opportunity of seeing this patient, when Dr. Kidd for the first time introduced the speculum, and examined the wound. The edges were in perfect apposition and seemed thoroughly united, but as there was no irritation from the sutures Dr. Kidd did not remove them, and, as the catheter did not cause any annoyance, he directed that it should still be kept in the bladder.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By CHARLES R. C. TICHBORNE, F.C.S.L., F.R.G.S.I., Etc.

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of statements made in any of the papers quoted in the compilation.]

METHYLIC ALDEHYDE.

THE aldehyde of the methylic series has never been procured, although a substance of considerable chemical interest. One of the latest investigations of Dr. Hofmann has been on this important body, and with his accustomed success, he seemed to have formed this substance or a prolimeric compound. He covers the bottom of a strong three-necked bottle with methylic alcohol. The first neck is provided with a tube descending to the very surface of the liquid. Into the second is fixed a loosely fitting cork, which carries a platinum spiral wire. The third one, communicates with the upper end of a condenser, the lower end of which is fastened into a two-necked receiver. This receiver is again connected with an aspirator, by which a current of air is kept up through the whole apparatus. The platinum spiral is heated to redness and introduced into the three-necked bottle. In a few minutes a flameless combustion of the methylic alcohol begins to manifest itself by the evolution of a vapour, which powerfully affects the nose and eyes. The liquid which collects in the receiver has all the properties which theory assigns to the aldehyde of the methyl series.

Dr. Hofmann has prepared the sulphaldehyde by passing sulphuretted hydrogen through this liquor, *i.e.*, the solution of methylic aldehyde in methylic alcohol. On adding hydrochloric acid, white crystals were formed, which give, on analysis, CH^2S.

TRANSFORMATION OF THE AROMATIC ACIDS IN THEIR PASSAGE THROUGH THE ANIMAL ORGANISM. FROM A FRENCH MEMOIR. BY M.M. GRAEBE AND SCHULZEN.

The authors, after having taking two grammes of chlorobenzoic acid in the evening, examined their urine the following morning, and found it to contain chlorohippuric acid, identical with that which M. Otto obtained by the action of chlorine upon hippuric acid.

Anisic acid on traversing the economy is transformed into anisiuric acid $C^{10}H^{11}NO^6$. Under the same circumstances, cinnamic acid is converted into hippuric acid. The same results were got with amydalic acid.

Phtalic acid is transformed into a body containing nitrogen, which is very soluble in water. It has not been obtained in a quantity sufficient to be studied.

Tyrosine passes in the organism without altering. It was re-found in the urine.

BENZOIC ACID.

According to Dr. Odolfotts, benzoic acid is now largely manufactured, commercially, from napthaline (a waste product from the manufacture of gas, which, hitherto, has received no application, although procured in large quantities). The benzoic acid is got by a rather complicated and laborious process, but from the great cheapness of napthaline, it can be manufactured for the market. It is said that it is the most important discovery made in technical chemistry since the London Exhibition of 1862.

DETERMINATION OF COPPER.

M. Lecoqe de Boisbaudran separates this meta l in the following manner :—The slightly acidulated solution of the sulphates of copper and other metals is placed in a platinum crucible, which forms the negative current from two of Bunsen's cells. The positive pole terminates in platinum foil, and passing through a perforation in a watch-glass, which covers the crucible, dips into the liquor. The copper separates in a perfectly pure state, and the reduction is accomplished in three or four hours.

MELILOTIC ACID.

This acid is found in *melilotus officinalis* combined with curmarin. It belongs to the salicylic series, and, when fused with hydrate of potash, hydrogen is evolved, and salicylic and acetic acids are formed. This acid is monobasic, and its salts mostly crystallize well.

ESTIMATION OF LEAD BY PRECIPITATION IN THE METALLIC STATE.

M. Stolba estimates the lead (either in soluble or insoluble compounds,) by zinc, in the presence of hydrochloric acid. The reduction is made at a temperature of a salt-water bath, and in a platinum crucible. As lead is soluble in pure water, the spongy precipitate obtained is washed with common water acidulated with a few drops of sulphuric acid. This lead, when dry, does not give exact results on weighing, because the surface is partially oxidized ; it is therefore better to estimate it volumetrically by Mohr's method, namely—by dissolving in a volumetric solution of nitric acid, and afterwards tritrating the excess of acid by a solution of soda.

ACTION OF ALDEHYDE ON ANHYDROUS PRUSSIC ACID.

Dr. Maxwell Simpson and A. Gautier describe a substance got by the prolonged action (10 or 12 days) of anhydrous prussic acid and aldehyde—molecule for molecule. They gradually unite, and on submitting it to fractional distillation, the greater part passed over about 183C. They propose cyanhydrate of aldehyde, as a name for this compound, which is simply founded upon its synthetical formations.

Gaseous ammonia is absorbed by this body with the production of a body, not yet analyzed. Treated with hydrochloric acid in a freezing mixture, an acid was obtained, which, on analysis, proved to be ordinary lactic acid.

The authors conclude by saying, that their experiments afford a striking example of an organic body, which is disassociated by heat, and reconstructed by time.

THE FABRICATION OF CARBONATE OF SODA.

Salt is intimately mixed with sesquioxide of chromium only, or with the addition of oxide of manganese, or with chromate of iron or lead. This mixture is heated to about a red heat, and is then submitted to a current of steam. Hydrochloric acid and chromate of sodium is thus produced. When the disengagement of hydrochloric acid has ceased, the fire is decreased, and the whole is mixed with charcoal and again warmed to a sombre red heat. The chromate of sodium is by this means transformed into carbonate of soda and sesquioxide of chromium, which can then be used indefinitely. It suffices to submit the product of this second calcination to a regular washing, to separate the two substances.

ON THE PREPARATION OF MICROSCOPIC CRYSTALS.

Mr. Waddington, in a communication to the Pharmaceutical

Society, says that it may be laid down as a definite rule, that the formation of perfect crystals depends upon the rapidity with which they are deposited ; the more quickly the solution can be made to crystallize, the more perfect the crystals generally are. (These remarks, of course, appertain to crystallizing upon microscopic slides alone.—E. S.)

The exceptions to this rule are very soluble substances, such as sugar, tartaric, and citric acids. In such cases the author recommends cold saturated solutions, and to leave thin layers of these solutions to dry in the air. In a damp atmosphere, they will not crystallize at all. Herapathite (sulphate of iodoquinine) should be mounted dry, if it is desired to preserve it as a permanent object.

ACTION OF PEROXIDE OF MANGANESE ON URIC ACID.

If uric acid and peroxide of manganese are heated together with water and sulphuric acid, a quantity of large hexagonal crystals are formed, which consist of parabanic acid. If, however, says Mr. C. Wheeler, the uric acid is heated with a large quantity of water and peroxide of manganese added, as long as carbonic acid is evolved—urea, allantoin, and oxalic acid are formed. The action of peroxide of manganese upon uric acid resembles, therefore, very closely that of peroxide of lead.

MOCK SCOTCH SODA CRYSTALS.

These are, properly, sulphate of soda. It is, however, difficult to tell them from Scotch soda (washing soda of the shops,) by the eye alone.

Twelve pounds of soda ash are added to every hundred pounds of the sulphate of soda in solution. The liquid is allowed to settle, and then drawn off into coolers to crystallize.

ACTION OF HEAT UPON SUGAR, ETC.

Cane-sugar is decomposed when heated with water in sealed tubes to 160° C. Carbonic acid gas is formed, and carbon separates the latter, amounting to nearly half the quantity of sugar taken. The contents of the tube show strong reaction due to formic acid. A small quantity of ulmic acid is also formed. No decomposition takes place if sugar is heated with alcohol to the same temperature, or with a solution of baric hydrate. Other members of the sugar group treated in this manner show a similar behaviour. The action of water on gum gives rise to the formation of a new acid which is insoluble in water, but soluble in alcohol and ether.

ON THE PREPARATION OF NICOTINE. BY M. PHIBRAN.

The author digests with heat for twenty-four hours 3 kilogr. of leaf-tobacco with 10 litres of water acidulated by 90 grammes of sulphuric acid. The filtered liquid is evaporated to a thick consistency in a salt water bath—having added to it 125 grammes of pulverised charcoal to prevent the mass from agglutinating. The residue is dried by a gentle heat, and then powdered and digested during twenty-four hours with three times its weight of hot alcohol at 90 centiemes. He distils this alcoholic tincture, and redissolves the residue in water. A brown watery liquor is thus obtained, which contains all the nicotine, and, at the same time, some sulphate of ammonia. He again distils with an excess of potash, and saturates by sulphuric acid the distilled liquor. After decolourising it, the author evaporates by a salt water bath, and treats the dry residue by absolute alcohol, which dissolves all the sulphate of nicotine. The alcohol having been distilled off, the nicotine is set free by potash, and he shakes the resulting liquor with ether, which rises to the surface, and forms a distinct layer containing all the nicotine. This layer being decanted, leaves the nicotine, after the evaporation of the ether.

PYROGALLIC ACID.

M. M. Victor de Lunes and Esperandieu, make this acid in the following manner :—They introduce into a bronze vessel, which can be perfectly closed, gallic acid with two or three times its weight of water, and maintained at a temperature of 200 to 210 degrees during an hour and a half or two hours. The boiler then contains a slightly coloured solution of pyrogallic acid. It is boiled with animal charcoal, and after filtering is evaporated. On cooling, the pyrogallic acid crystallizes in a hard mass of a light brown colour, or slightly tinged rose colour. To obtain it perfectly white, it may be distilled in a vacuum. By this process the theoretical quantity may be got from the gallic acid.

When a solution of pyrogallic acid is added to lime water, a magnificent violet colour is produced. Ethylamine produces the same reaction.

When a concentrated and slightly acid solution of sulphate of quinine is mixed with a concentrated solution of pyrogallic acid a crystalline and slightly yellow deposit is formed, which contains the elements of sulphate of quinine and pyrogallic acid. When perfectly bright solutions are mixed, no precipitate is formed until a crystal of sulphate of quinine is added, when it becomes nearly solid.

ATTAR OF ROSE.

The author confirms the opinion of which many pharmacologists have long been perfectly aware, that commerce at the present day knows of but one source for Attar of Rose worth naming, and that is the southern slopes of the Balkace.

According to some authors, the rose which is used for making Attar is Rosa Moschata. According to others, R. sempervivens, R. centifolia, R. provincialis, or R. damascena. The author's opinion is, that the original rose, which has been long in cultivation there, is a variety of R. damascena, and in this opinion he is supported by Professor Hugo *v.* Mohl. The resin of the calyx which adheres to the knives and hands of those who cut the flowers, is collected and prized as a perfume under the somewhat inappropriate name of "Gül Schamur." (Rose dirt).

The nature of the soil has an influence, in so far as that, when it is poor in humus, and but seldom manured ; the roses afford but little oil, and that more congealable, or in other words, richer in stearoptene. Pure attar of rose, carefully distilled, is at first colourless, but speedily becomes yellowish. Its sp. gr. at 18° R. 72·5° Fahr. is 0·87, its boiling point 229° C. (444° Fahr). It consists of an elœoptene and a stearoptene, the former the source of the odour, the latter of the property of congealing into a solid form. Pure attar of rose, once distilled, solidifies at a temperature of from 11° to 16° C. (51·8° to 60-8° Fahr), or still higher—it is soluble among other things in absolute alcohol, and in acetic acid. Its odour is rose like, with a peculiar honey like sweetness, agreeable only when highly diluted. The most usual and, by long practice, also the most certain criteria of the purity of attar of rose are—

The temperature at which it congeals.

Its manner of crystallizing.

Its odour.

In Kezanlik, as at all other places, attar is, up to the present time, bought and sold, chiefly according to the temperature at which it solidifies, in other words, according to the proportion which it contains of inodorous camphor or attar of rose steroptene. Why is this ? the answer is simple. The stearoptene is, to a certain extent, one of the constant constituents of attar of rose, and an indicator of its purity. If rose oil be augmented by fradulent additions, its congealing point will be thereby diminished, and it will be necessary to produce its crystallizing tendency by the addition of some substance possessing properties like those of natural stearoptene. But any such body, which is not at once recognisable, even by a person of small experience, does not, to the author's knowledge, exist. If the mixture of spermacete is proved, there is still the question of adulteration with essential oil, and this is, in fact, much more frequent, and also of much more difficult recognition. The admixture in question relates entirely to the so-called geranium or palmarosa oil. The oil of rhodium and oil of sandalwood, are, indeed, with attar, as stated in many handbooks of materia medica, or that such a mixture could be substituted for pure rose oil, is, for any person who has once in his life smelt these oils, simply an impossibility. The Turkish geranium oil (in Turkey, called enterschah) is, according to accounts, derived from a grass of the genus Andropogon, which is distilled in the months of December and January, in the neighbourhood of Delhi. The author has learnt to distinguish but one constant character for geranium oil, which is that of not diverting a ray of polarized light, whilst attar, in the tube of 100 m m, rotates the ray 4° to the right. Here is the single handle for the examination of a suspected attar. Considerable difficulties are certainly in the way of using such a test. The differences observable are very small, and the test is, in fact, applicable only in the case of very gross adulteration. The author considers that in attar of rose, which at a temperature of 12-5° C. (54'5° Fahr.) in a thin glass tube, does not congeal well in the space of five minutes, and which has not moreover a dextrogyre rotatory power of 4°, should be returned to the seller, no matter how fine may be its odour. That there are attars which solidify at 10° C. (50° Fahr.) and yet are genuine (owing, for instance, to faultily conducted, or to repeated distillation), is just as true as that there are those which do the same, at from 20° to 25° C. (688 to 77°

Fahr.) and are yet of indubitable goodness—but these are exceptional, as in the case of opium, certain indubitably pure samples of which have yielded respectively 2 and 16 per cent. of morphia.—(From a translation by Daniel Hanbury—the author being R. Baur, of Constantinople.)

Foreign Medical Literature.

REPORT OF AN OPERATION FOR HERNIA CEREBRI: WITH OBSERVATIONS.

BY DR. MED. H. HIRSCHSPRUNG.

Translated, with abridgment, from the *Ugeskrift for Læger*, Nos. 16-19, March and April, 1867.

By W. D. MOORE, M.D.Dub. et Cantab., M.R.I.A., L.K.Q.C.P.I.,

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(Continued from page 70.)

Scarcely fourteen days after the operation, however, consequently long before the healing of the incision in the skin, decided signs of a complication presented themselves, which, notwithstanding that the child's general condition was in no way affected thereby, was too well calculated to obscure the favourable prospects which at first seemed to open, of its recovery. In the increasing width of the sutures and fontanelles, we had unmistakable signs that a collection of fluid had begun to form within the cavity of the cranium, and measurement of the head, repeated at different periods, proved that the amount of fluid was rapidly increasing.

Thus, in the course of seven weeks, the horizontal circumference of the head had increased by not less than four inches, and other measurements had grown in the same proportion. The head had gradually acquired the high, arched, and projecting forehead peculiar to hydrocephalus, which stood in marked contrast to the small face; the skin of the head had become tense and shining with translucent veins, the fontanelles were bulged convexly forwards, the feeling of fluctuation could be communicated from one to the other; the sutures, both great and small, become more and more widened, the child had difficulty in holding its head erect, and inclined it now to one, now to the other side. But at the same time its appearance was that of a very thriving child, and all its functions were in the best order. There was no paralysis, sometimes there was slight strabismus, but not more than in so many infants who have not yet learned to fix objects correctly, and the pupils were natural. Latterly, the child showed some signs of beginning to take notice, evidently listening to various sounds, and looking after things held before its eyes, although with an uncertain look. I shall further call attention to a circumstance which might indicate that the right half of the brain was more deeply implicated in the hydrocephalic process than the left: through the highly dilated anterior fontanel, the falx cerebri was distinctly felt as a resisting cord, lying, not in the middle, but a couple of lines to the left of it. The comparative measurement of the lateral portions of the head did not, however, afford a result tending in the same direction, on the contrary a slight difference ($\frac{1}{8}''$) was found in favour of the left side.

The state of affairs could not be mistaken. It was evident that the sac adherent to the head, had been the receptacle for a copious secretion of fluid within the cranium, which must have been going on long before birth, the operation had prevented the escape of the fluid, and the latter was now dammed up, and endeavoured to get room by extending its boundaries. After the operation had removed the external appendix, and as the loss of the small prolapsed part of the brain seemed unattended with any serious consequences, the remaining affection was to be classed with the ordinary congenital hydrocephalus, of which it shared not only the symptoms, but also the prognosis and treatment. The prospect must certainly be looked upon as bad, but still treatment ought not to be neglected. With Bednar's experience before me: ("I have in some cases seen congenital hydrocephalus get well under the use of iodide of potassium, *Lehrb. der Kinderkrankh*, 1856, p. 160), I tried iodide of potassium first without, subsequently in combination with compression, as it was my purpose, if these means failed, to try puncture through the anterior fontanel, or perhaps through the opening in the cranium, through which the hernia had protruded.

On the 4th April, I began the employment of iodide of potassium, with a solution of half a drachm to eight ounces, of which the child took a tablespoonful three times a-day, but by degrees I increased the daily dose to double. The medicine showed its action by a slight catarrhal affection of the mucous membrane of the eyes and air-passages, the flow of urine was increased, and the alvine discharges gradually became thinner and more slimy, but the child's general health continued satisfactory. On the 8th of May $3\frac{1}{2}$ drachms of the iodide had been taken. The urine was light-coloured, clear, neutral, free from albumen; by Heller's xyloidin-test it exhibited a strong reaction of iodine. The head continued to expand, though more slowly than before. Immediately beneath the occipital cicatrix an oblong depression in the bone was felt, which was driven a little forward when the child cried. The degree of strabismus was variable. During the use of the iodine, compression with adhesive plaster over the whole head, was employed on the 10th of May. This plaster, showing a tendency to separate, and there being also some eczema of the scalp, and slight ulceration of the cicatrix, was removed on the 12th June. The increase of the measurements of the head was considerably less than during the use of the iodine without compression.

On 18th June, the sores having healed, a fresh compress was applied.

June 30th.—"The child having appeared perfectly well during the whole day, exhibited yesterday, towards the afternoon, spasms here and there throughout the body. During the night she got more violent convulsions, which next morning proved fatal. Even half an hour after death cadaveric rigidity had set in. The head was somewhat collapsed, and the fontanels were retracted." The child was twenty weeks old.

I may now be allowed, before passing to the report of the post-mortem examination, to mention an affection in the same child, not indeed very closely connected with the lesion, which gives the case its essential character, but forming a little episode of some interest. I refer to a cephalohematome which was found on the left parietal bone. Even immediately after birth, a small soft part was felt on this side of the head, which excited suspicion of its being an incipient cephalohematome, as the labour had been so easy, the idea of an ordinary swelling from its effects could not be entertained. On the following day, this suspicion became certainty, the collection of blood having increased, and the formation of a bony ring having commenced; the bone forming the fundus was still to be felt. During the following days the tumour increased, but seemed afterwards, on the 14th of February, to have attained its highest development. It was arched, tense, strongly fluctuating, as if it contained a thin fluid. It occupied the inner half of the bone, but so that it was removed about $\frac{1}{3}''$ from any suture. The outer side was indented in the middle, whereby the whole swelling acquired the usual renal form, produced by the parietal tuberosity, as it were, projecting into the tumour. It was $2\frac{1}{4}''$ long, $1\frac{1}{4}''$ broad, almost an inch in height. The tumour was completely bounded by a bony ring, which was weakest at the posterior horn. During the ensuing days the cephalohematome seemed to diminish, and felt as if the fluid had become less thin; but thereupon this peculiarity presented itself, that the swelling for many days again increased greatly, and particularly at the posterior part, where the bony ring had been least developed. Fearing that its contents might by possibility be in danger of being metamorphosed into pus, I made a puncture with a needle into the tumour, but only a drop of red fluid blood appeared. On the 23rd of February the increase of the swelling was arrested, and the bony boundary was everywhere well developed. From this time the cephalohematome began steadily to diminish; it became gradually flatter, and on deep pressure the surface of the bone could be felt, and an active production of flat and knobby bony formations was perceptible, proceeding partly from the edges, partly from the fundus, whereby the tumour was apparently divided into several parts, between which the fluid still circulated freely for a time. It was not until a very late stage that a parchment-like crepitation manifested itself in the upper wall of the tumour; but gradually this disappeared along with the remains of the fluid, and eight weeks after birth the seat of the cephalohematome was marked only by some inequality in the bone, which also at last went off.

To the foregoing report I shall, as the pathology of cephalohematome has in our day been fully investigated and is generally understood, add only a few remarks. It must be considered as settled that this affection arises exclusively in those parts of the surface of the cranium, where the outer lamina of the bone is at birth still undeveloped, and that it occurs by laceration of the minute vessels which in great number connect

the diploë and the pericranium. We, therefore, meet with it only exceptionally and to a limited extent on the frontal and occipital bones, where the outer bony lamina in the mature fœtus is wanting only in small portions (in the case of the frontal bone just over the supra-orbital margin), and therefore we never find it (primarily) on the parietal tuberosity and the adjoining lower half of the parietal bone, where the outer lamina always exists at birth, while, on the contrary, the favourite seat of the tumour is the upper half of the bone, where the same lamina is as constantly absent. In this state of things we must further seek the explanation of the renal form of the tumour mentioned by some authors (Bednar, Rokitansky) which, as will be remembered, was present also in our case: the tumour developes itself in a crescentic form round the parietal tuberosity as around a centre, and only in very rare cases does the limitation occur so late, and is the tension in the extravasated blood so great, that the periosteum is loosened also from the developed parts of the bone, and that the cephalohematome comes to occupy the parietal bone in its integrity. As to the question of treatment, opinions have been divided. While the surgeons (Vidal, Nélaton) advise us to open the swelling with the knife as the quickest and safest plan, the most experienced obstetricians (Bednar, West) leave it to the powers of nature. Our case is in favour of the latter view. Bednar (l. c., p. 376) is certainly right in saying that the cephalohematome, which is covered by an uninjured pericranium, never passes into suppuration.

The post-mortem examination took place ten hours after death.

The body was in good condition, the subcutaneous adipose layer was still very considerable. Length 24 inches from the vertex to the toes. The anterior fontanel was much collapsed, and presented the appearance of a boat-shaped depression with irregular edges 4″ in length, 3″ in breadth; as did the sagittal suture, which had very irregular, strongly curved margins. The measurement of the head yielded the following results: circumference, 17¾″; from ear to ear, 9½″; from the glabella backwards, 10¼″.

The skin was divided with the ordinary curved incision across the vertex, and was reflected backwards and forwards. In the suture the falx cérebri was now distinctly seen to deviate somewhat (1¼‴) to the left of the middle line. Thereupon the dura mater and falx were divided, and the frontal and parietal bones were removed. The meshes of the pia matter were filled with a thin layer of clear fluid, its vessels were present in the usual number, and were of the normal size; the convolutions of the brain were not flattened. The cause of the oblique position of the falx was now found to be a rather greater development of the anterior half of the right cerebral hemisphere, whose inner wall somewhat over-passed the middle line. The hemispheres were without tension, on the contrary, they were flaccid, so that when the head was moved they oscillated from one side to the other. The right hemisphere was opened by a longitudinal cut through the mass, which was half an inch in thickness, and was of the ordinary consistence. A view was thus obtained of an immense cavity, formed by the fusion of the two lateral ventricles and the third ventricle, the foramina of Monro being dilated to an enormous size, the corpus callosum was pressed strongly upwards, the septum lucidum and the fornix had disappeared. On the other hand, through the fluid, at the bottom of the cavity, were seen the corpora striata, (which subsequently on section exhibited the usual appearance) removed from each other by the third ventricle dilated to ¾″ in breadth, in the anterior part of which a round opening of the size of a pea was seen, the largely dilated aditus ad infundibulum, which was lost in a funnel shape inferiorly between the lobes of the pituitary gland. Posteriorly, the third ventricle was prolonged into an oblong, olive-shaped cavity with a very thin superior wall. on which medullary striæ were seen to run longitudinally. This cavity, the enormously dilated aqueduct of Sylvius, was about 5-4ths of an inch, and in the middle, where it was broadest, ¾″; posteriorly, it terminated in a *cul-de-sac* without connection with the fourth ventricle, which was not dilated or morbidly altered. The tubercula quadrigemina were completely absorbed in the upper wall of the cavity, nor was a trace of the pineal gland discoverable.

The posterior horns of the lateral ventricles were comparatively strongly dilated, the wall was here thinner (4‴), the meshes of the pia mater were devoid of fluid, the cerebral mass in close contact with the dura mater and the bone, and its convolutions were somewhat compressed. The inferior surface of the lobes of the cerebrum were attached by fragile filaments of connective tissue to the upper surface of the cerebellum, as the tentorium cerebelli was extremely defective, and represented only by a couple of small lateral portions, terminating posteriorly and anteriorly separately from each other. Through the great dilatation of the posterior part of the lobes of the cerebrum the space assigned to the cerebellum was very limited: the foveæ occipitales inferiores occupied in comparison with the foveæ superiores only a small space, scarcely a fourth of the height of the occipital bone; while the anterior part of the right hemisphere had been more largely dilated than the corresponding left, the reverse was the case posteriorly; here the left posterior cornu was most strongly developed, it extended more deeply downwards and pushed the left half of the cerebellum, which thus acquired a very oblique form, forward. On a level with the spina occipitalis its calibre was contracted, funnel like, to a minute canal, and with simultaneous puckering and attenuation of the surrounding cerebral mass it terminated together with an annexed production of the choroid plexus as a small fibrous bundle in the cerebral membranes, corresponding to the opening in the bone to be presently described.

The ependyma lining, [the dilated cavities was highly thickened and was changed into a white, firm, superficially slightly villous membrane, capable of being with ease peeled off in great pieces, and drawn out between the fingers.

The fluid contained in the brain amounted to from 18 to 20 ounces. It was clear as water and of a saltish taste. Dr. Lehmann examined it chemically in the laboratory of the Municipal Hospital, with the following results:—Its reaction was faintly alkaline; it contained a rather small amount of solid constituents, as its specific gravity was only 1·009, while that of serous fluid in general varies from 1·005 to 1·030. Of the solid constituents the inorganic, and of these again, the chlorides, greatly preponderated; of carbonates, phosphates, and sulphates, the fluid contained only a trace. Of organic constituents, it contained a rather small amount of albuminous matters, both globulin (=fibrinogenous substance), and albumen, moreover, some fat, a little urea, and a trace of sugar.

The bones of the cranium were fully as large as those of an adult, and were well ossified. An active production of new bony mass had been in full progress at the margins, and in the sagittal suture were found several small islands of solid bone. Corresponding to the upper part of the left parietal bone, where the cephalohematome had been situated, a great thickness of the bone was met with, measuring, in some places, two lines. It was produced by the deposition on the outside of the bone of flat osteophytes, which increased in thickness in towards the part which had formed the centre of the tumour, and was here bounded by two very irregular, sharply cut off lines, which at one time, in a curve, approached the middle line, at another, drew back in curves and indentations, leaving a slightly excavated, very irregular part, oblong from before backwards, the only part to which the periosteum adhered somewhat more firmly, and, when separated, carried with it small spiculæ of bone, while it could elsewhere, with the greatest ease, be separated from the surface of the bone. On the inside of the bone, two new osseous formations had taken place, but here rather in the form of irregular juga cerebralia. In the situation of the protuberance of the parietal bone, the bone was very thick, and the surface, as well as in the adjoining part, was externally polished and smooth.

In the occipital bone there was found, in the middle line, immediately over and in the upper part of the spina occipitalis externa, an opening in the bone, of half an inch in length and two lines in breadth, of an oval form, with rounded off angles and edges. The upper extremity of the opening deviated a little to the right, so that it was not situated quite directly in the middle line. In towards the cavity of the cranium the opening was covered with the dura mater, to which the part of the left posterior cerebral lobe, already mentioned, was attached. The surrounding bone was much thickened, and around the opening many nutritive foramina were seen. As a trace of the earlier separation of the bone in the middle line, there was found on the outside, from the opening up to the superior angle of the bone, a slightly excavated line.

The superior longitudinal sinus was seen, an inch over the seat of the spina occipitalis interna, to divide into two sinuses, a greater one to the right, and a somewhat less one to the left, which ran obliquely down over the squama oss. occipitis, to the mastoid process of the temporal bone, and over this to the foramen jugulare.

(To be continued.)

Literature.

NEW EDITIONS.

THOSE who perused Mr. Morant Baker's essay on the "Relations of Life to Other Forces," in the last volume of St. Bartholomew's Hospital Reports, will have formed a favourable opinion of that gentleman's abilities, and be prepared to find his edition of Kirkes's "Handbook of Physiology,"[1] thoroughly up to the mark. The work of Dr. Kirkes was so well and so favourably known, that it is no wonder the publisher should desire to bring out a new edition, revised by a competent person. A text-book, once established, long continues in favour, and for that reason alone, it is desirable that successive editions should be carefully revised. This is especially true of such a science as physiology, and we are glad the duty has been entrusted to one so evidently capable of performing it. The publisher has seconded the editor, by giving good type, good paper, and first-class illustrations on steel and wood. The binding is elegant, but for a text-book we should have preferred it a little more solid, and the edges ought to have been cut. Binders are very negligent on this point, which is of considerable consequence in well-established students' class-books, as these are expected to be well-thumbed. To return to the editor. Mr. Morant Baker wisely considers that it would have been of little use merely to interpolate such new theories and facts as have been recorded since the date of the former edition. Accordingly he set himself to "thoroughly revise the whole work as a handbook for students, and to regard the discussion of all new and crude matter as secondary in importance to a clear enunciation of those grander facts on which, alone, all true knowledge of the science must be founded." A plan like this, naturally involved much more toil than that of merely adding to the original book, notes of contradiction or corroboration, as occasion required; in fact, it necessitated the re-writing of considerable portions—the submergence, so to speak, of the editor in the first author. By it, however, unity of design is secured, the student's attention is not constantly distracted, and a more useful and more readable work is produced. We congratulate Mr. Morant Baker on the manner in which he has accomplished a task of no slight difficulty.

Among the additions to the work, we may notice a brief chapter giving an account of such elementary tissues as had not been previously described, and which will prove very useful to students, as it is very exact and concise. The present writer does not profess to have read the book through, but he has referred to the chapters which relate to the subjects he has lately been occupied with, and has found them eminently satisfactory.

We have been waiting with interest the promised new edition of Professor Galloway's "First Step in Chemistry," and are pleased to announce that it has just appeared, re-written, greatly enlarged and much improved.[2] We remember the first edition of this book, very thin and unpretending, but very practical and easy to understand; introducing students and young people to an accurate knowledge of the *alphabet* of a fascinating science, and leading them on by easy gradations until they could spell out for themselves some of its most important lessons. Then came the second edition, thicker and more complete, then a third still thicker; and now, after being out of print for many months, we welcome the fourth, which has become quite a thick little manual of 470 pages small 8vo., and contains the new nomenclature, besides many other additions—the result of the author's experience in teaching. Whenever we are asked to recommend a book on Chemistry to a beginner, we never fail to mention Galloway's *First Step*, and if this science is to be taught in schools, this is the manual which the pupils should adopt as their guide. We have known rapid progress made by those who have confined themselves to this one book, and no one of average intelligence would follow the author's instructions without laying a broad foundation of knowledge upon which he might go on building with ease and confidence. Professor Galloway's method can scarcely be called new any longer, for it has stood the test of experience, and is thoroughly established in public favour. As arithmetic cannot be taught by lectures alone, but requires the pupil himself to perform the operations of addition, subtraction, multiplication, and division; so Mr. Galloway expects the student to go through a series of exercises as important to a practical acquaintance with chemistry as the four first rules are to those who would comprehend arithmetical calculations. The nomenclature and notation of chemistry, the use of signs and brackets, the construction of formulæ, the mode of expressing chemical changes, the method of determining the quantities of the constituents in given quantities of compounds, and other equally valuable processes, form the subjects of numerous exercises which are so gradually progressive as to advance the student by almost imperceptible degrees from the darkness of total ignorance to familiarity with the great principles of the science. This is the way we learn to read, first the alphabet, then simple syllables, then words of one, two, or three syllables, which we learn to spell for ourselves, and to combine with each other. The method is a thousand times more easy and more effectual than a study of each of the elements with all its combinations in succession, which leaves the last lesson nearly as difficult to acquire as the first. The *First Step* must, therefore, continue to enjoy the favour that was shown to former editions as an excellent plan of teaching chemistry to the young. Medical students would do well to begin with it. Schools that teach chemistry will be sure to give it the preference. Popular classes everywhere will employ it. Students who have no teachers can procure no better work, and the book must have a still wider field; for the number of those interested in chemical processes as manufacturers, is constantly increasing, and we would advise them if they have embarked their money in such things without understanding them, by all means to begin with the *First Step*, and learn what so much concerns them. In any case they would also do well to use all their just influence over those they employ, to encourage them also to the same course.

Having spoken so favourably of the method which we tried years ago, it only remains to specify some of the changes of this edition. First, as we have already said, the new nomenclature and notation is added. This is given at the end of the book. The pupil must first master the old. We quite approve of this, for the old system must be understood, however rapid the progress of the new, as the past literature of the science cannot all at once become a dead letter. Next, the account of electricity and galvanism is re-written, and copious exercises are given. Then the theoretical and experimental exercises are increased all through the work, and selections from the questions of the examining boards have been introduced. The enumeration of these few of the changes is sufficient to show that the new edition will maintain the position acquired by its predecessors.

We may add that there is an index, as well as a table of contents, adding considerably to the usefulness of the book.

A few errata have had to be printed, which the student would do well at once to correct with a pen, as three or four of them are such as may easily puzzle him.

A second edition has been called for of Mr. Henry Smith's "Lettsomian Lectures."[1] In them he treats of such points of the surgery of the rectum as could be compressed into three lectures. Mr. Smith has retained the form of lecture in this edition. At the same time, he has made some additions suggested by his enlarged experience. In the first lecture he dwells upon the close connection of fistula in ano with stricture of the rectum. In the second he treats of stricture, cancer, and polypus; and to this lecture some additions seem to have been made. In the third he enters upon prolapsus and hæmorrhoids, and the use of his improved clamp. There is a great deal of new clinical matter. In the first edition 35 cases were related; now we have 120, and all successful. Mr. Smith says he has now entirely discarded the ligature. This success, together with the fact that this little book consists of the Lettsomian Lectures before the Medical Society of London, delivered by a surgeon of Mr. Smith's well-known character and ability, who has attained the position of president of the society, will, we think, ensure the attention of the Profession to the method propounded of dealing with such universal diseases.

1 Handbook of Physiology. By Wm. Senhouse Kirkes, M.D. Sixth edition. Edited by W. Morant Baker, F.R.C.S. London: James Walton. 1867.

2 The First Step in Chemistry: a New Method of teaching the Elements of the Science. By Robert Galloway, F.C.S., Professor in the Royal College of Science for Ireland. 4th edition. London: John Churchill and Sons. 1868.

1 The Surgery of the Rectum: Lettsomian Lectures, 1865. By Henry Smith, F.R.C.S., Pres. of the Medical Society of London, &c. 152 pp., stitched. London: J. Churchill and Sons. 1868.

HEALTH OF ST. THOMAS'S.—It is said on good authority that cholera of a severe type made its appearance at the Island of St. Thomas in the last week of December, and that five deaths occurred. Yellow fever still lingers there.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 12, 1868.

QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

As the dark days and thickening fogs of November began to settle down upon us, there were many things which threw a shadow over our feelings, and excited some gloomy forebodings that the condition of our teeming population would be found anything but encouraging at the end of the year. There were disturbances which indicated dissatisfaction, and seemed to show not only mismanagement, but overreaching, disregard of right, and oppression of those who could not help themselves. Besides which there was a deficient harvest, and high prices, just at the time when considerable commercial perplexity was throwing many hands out of work, the consequence of which was a fearful increase of destitution. All these things, and others, led us to anticipate an amount of misery and of suffering which would interfere largely with the welfare of the labouring and dependant classes, and augment the death-rate of the quarter far beyond its usual proportions.

Nothing at such times is more instructive than the periodical returns of the Registrar-General. They correct our misapprehensions, dispel our needless fears, give us encouragement at times when we had lost heart, show us our shortcomings, awaken us to a sense of danger where we suspected none, and with an authoritative voice call us to our duty. It is impossible to overlook them. They have arisen with the progress of society, and may help to solve more problems than those which relate immediately to health and life on the one hand, or disease and death on the other.

Almost the first thing that strikes us in looking over this record is the statement that "the death-rate of the United Kingdom differs little from that prevailing in England and Wales;" so that whatever may have been the difficulties with which we have had to contend, it is fair to infer that they have been equally shared throughout the kingdom; that we in England have felt them as heavily as those in Scotland, or even in Ireland itself. It is satisfactory also to learn that, notwithstanding the distress which has been known to exist in various parts, the death-rate has been much beneath the average. It has been decreasing most plainly for the last three years. In the three months ending with the year 1865, the deaths registered were 121,245, in the same quarter in 1866, they were 117,187, while in the quarter ending December 1st, 1867, they were only 115,863. The number of births over deaths in the quarter, or the natural increase of the population was almost 90,000; but this is reduced by a little more than 30,000 emigrants, so that the increase of the population in the quarter was 60,000.

Though these figures show favourably, and may lead us to think that our condition is not so disastrous as might have been expected, yet there has been, no doubt, less of prosperity and more of privation in the kingdom generally than in previous years. The marriages and births bear testimony to this. The former show a decrease of 2000 in the quarter ending September 30, 1867, compared with the same period in the two preceding years; and the births in the quarter ending 31st December last were 2400 less than the fourth quarter of the previous year. These returns undoubtedly prove that trade must be bad, and the working-classes thrown out of employment, at least to a certain very appreciable extent, and that while these two thousand men cannot find the means of supporting conjugal claims, there must als o be thousands of others exposed to want and woe in no ordinary degree.

But leaving these figures, which are some of the most important, a reference to the notes of the Registrars in some of the different districts will corroborate what we have often remarked as to the value of sanitary improvements, and the danger of disregarding them in every neighbourhood where the human family is collected. The returns inform us of the prevalence of epidemics in towns and villages where measures for the preservation of health are neglected, and reveal the fact on the other hand, that by due and persistent care they may be almost, if not wholly, avoided. It is high time that men should be taught to take care of themselves. They have not fully learnt the lesson yet. Some allowance must be made for unavoidable ignorance, and in some cases for inbred want of observation; but we hope before long that the better taught, and influential portion of the community, will feel the importance of the subject, and soon in every locality all will become fully aware of those contaminating influences which inevitably engender and foster disease, and feel no security until they have removed them.

"CROWNERS' 'QUESTS."

AT a moment when the dignity of the ancient court of the Coroner is said to be endangered by the encroachment of the Government, and when more than one of these officials are resenting the refusal of the Home Secretary to produce prisoners before them, there has occurred a case which shows how justice may be set at defiance by a Coroner's Jury.

On the 15th of January, a woman went to the Metropolitan Dispensary, and said her husband had burst a bloodvessel. The boy rang for the Resident Medical Officer, who is, to our knowledge, one of the most diligent, kind, and active officers in London. Before he could get down stairs, the woman had gone away, and *had not left her address.* She had told the boy the doctor had been with her husband that day, but as he had finished all the visiting for the Dispensary, this information did not enable him to decide on the case where he was wanted. The man's house was very near, so that but for the poor woman's excitement and hurry, the patient would have been visited in a few minutes. An inquest was held (as the man died) at St. Bartholomew's Hospital, and the sage jury, presided over by the dread Coroner, without calling

upon the medical man in question for any explanation, proceeded, *in his absence*, to append a censure to their verdict for his neglect in not responding to the summons that had been made. Now here, we say, is an injustice upon the face of it. To condemn a man for neglect without his having the opportunity of speaking a syllable in his own defence, is a disgrace to the jury that so hastily jumped at an incorrect conclusion, and to the Coroner who presided over the inquiry. If every man's character is to be thus assailed, who will be safe? Here is a moral "stab in the dark" that might suffice to ruin many a worthy young surgeon, and which none but those of the very highest character could suffer without serious injury.

We happen to know much of the working of the Metropolitan Dispensary. It is one of the best charities of the kind. The Resident Medical Officer, Dr. SOUTHWOOD, is of an age and standing, that such a decided blunder cannot do him the harm it would a younger man. His diplomas date from 1834. Seven or eight years ago he graduated at the University of St. Andrews. Before then he was a Fellow of the Royal College of Surgeons. He has been for many years attached to the Dispensary, and enjoys the confidence of the whole district, as well as of all his professional brethren with whom he has been brought into contact. He brings to the discharge of his arduous duties unusual qualifications, skill, and experience, far superior to that which can be expected in all such positions, and a rare kindness of manner and sympathy with the sick poor, which must ever make him valued as their best friend, whenever his services are needed.

We are, therefore, by no means surprised that the Committee of the Dispensary, "after having fully and carefully investigated the circumstances," should have come to the conclusion that "no blame whatever is justly attributed" to Dr. SOUTHWOOD, and that they have expressed a decided opinion on the impropriety of such a censure having been "passed, without giving Dr. SOUTHWOOD an opportunity of being present to render any explanation in his power."

We, too, feel strongly that a gross injustice has been perpetrated, and we are sure that every one of Dr. SOUTHWOOD'S professional brethren will continue to feel as much confidence in him as the Committee of his Dispensary. We, therefore, tender him our best sympathy under the annoying imputation, and protest against the wrong that has been inflicted by the carelessness or haste of the jury.

Notes on Current Topics.

The British Lying-in Hospital, and the Female Medical College.

THE statement which we laid before our readers last week as to the circumstances attending the adoption by the directors to this institution of a resolution calling for the resignation of Dr. Eastlake, their physician, has elicited the following communication from Dr. Edmunds, which, being addressed to the editor of THE MEDICAL PRESS AND CIRCULAR, and not marked "private," we feel ourselves justified in publishing:—

"London, February 7, 1868.

"SIR,—Many friends have called my attention to the shameful and injurious article in THE MEDICAL PRESS AND CIRCULAR of the 5th inst.

"In that article, you adopt, endorse, and republish statements which I can only describe as impudent falsehoods, while your comments and editorial warning are obviously intended to injure myself and other well-known professional men, who are the administrators of the College.

"A suitable retraction must be inserted in your next number, or I shall be under the necessity of vindicating myself before a jury.

"I am at home every day until one o'clock, and shall be willing to signify my approval and acceptance of the proposed article in proof.—Your obedient servant,

"JAMES EDMUNDS, M.D.,
"Hon. Secretary to the Society."

Dr. Edmunds, or any other gentleman who may consider that our observations apply to him, can only call on us for a retraction, either on evidence that our facts are inaccurate, or our comments on them uncalled for.

We have in the communication of Dr. Edmunds, no information whatever on the subject, but after a careful perusal of the lengthened defence addressed by Dr. Edmunds to a medical contemporary, we are constrained to say that it offers little information relevant to the question, and none that substantially affects the accuracy of Dr. Eastlake's statements. It enters largely into a variety of accusations against Dr. Eastlake, and into the *modus operandi* of the removal of the acting medical officers from the direction of the hospital, but it does not attempt a denial of the fact that instruments were applied by the midwives without Dr. Eastlake's knowledge (and, as that gentleman says, contrary to his repeated orders, and to the great injury of the patient), and that the directors by visiting such an infraction of discipline with a mild rebuke and expelling Dr. Eastlake, *practically* gave their countenance to the offence, and dismissed the complaint.

After a careful perusal of the notice of which Dr. Edmunds complains, we cannot find that any commentary on the letter of Dr. Eastlake has been made which is not called for by the allegations put forward in that communication. We shall be glad to afford Dr. Edmunds every opportunity of contravening the statements, and should he favour the Profession with a convincing vindication of the Directors of the British Lying-in Hospital, to withdraw any observation which may appear to be unjust to them. We must, however, decline, until further information is before us, to modify our opinions, or to submit our editorial observations to the correction of Dr. Edmunds, and, while we desire to express our readiness to modify or retract any statement which we may find to be incorrect, it would be premature, with the uncontradicted allegations of Dr. Eastlake's published letter before us, to repudiate any of his statements.

Public Health.

WE select from the weekly return of the Registrar-General the following particulars:—There were 4712 births, and 3182 deaths registered in London, and 13 other large towns of the United Kingdom, during the week that ended on the first of February. The annual rate of mortality was 26 per 1000 persons living. The births of 2364 children were registered during the week in London, 1207 being boys, and 1157 girls; the average number for the corresponding weeks of the previous ten years is 2288. The deaths registered in London in the week were 1394, being 235 less than the estimated number for that week.

There were 286 deaths from zymotic diseases, 24 from small-pox, 26 from measles, 31 from scarlatina, 11 from diphtheria, 65 from whooping-cough, 47 from fever, and 15 from diarrhœa. There were registered also 170 deaths from phthisis, 183 from bronchitis, 80 from pneumonia,

and 43 from diseases of the heart. From burns or scalds there were 10 deaths recorded—viz., 7 children and 3 adults. Five infants died from suffocation, and 2 persons from privation, while 2 were killed by horses or vehicles in the streets. One death resulted from "chorea, occasioned by fright," at the Clerkenwell explosion.

In the different towns the annual rate of mortality last week was as follows:—In London, 23 per 1000; in Edinburgh, 27; in Dublin, 34; in Bristol, 28; in Birmingham, 24; in Liverpool, 31; in Manchester, 29; in Salford, 33; in Sheffield, 25; in Bradford, 24; in Leeds, 24; in Hull, 24; in Newcastle-upon-Tyne, 25; and in Glasgow, 32.

The Fever at Terling.

"No amount of hunting up of private nuisances will avail without the scavenger." So says the clerk to the guardians. He also reports that the Privy Council informed him in answer to an inquiry, that his guardians "had no power by law to scavenge," but that they "could only follow up a private nuisance." Acting on this advice, the guardians "dropped the cart" they had employed during the epidemic of cholera in 1866. This statement, we consider, calls for an explanation. If the guardians really had no authority at all, and were so advised by the Privy Council, it is absurd for public opinion to hold them responsible for the abominations pointed out in Dr. Thorne's report. Again, if such is the state of the law after all our efforts to improve our sanitary legislation the sooner Parliament recommences this kind of work the better.

Reformatories.

For more than a year compulsory detention, with hospital accommodation, and some opportunities for fallen women to return to a virtuous life, have been tried at Portsmouth, Chatham, and Aldershot. Differences of opinion seem to prevail as to the good that has been effected, but it should be remembered so utterly wretched are many who ply their disease-spreading trade amongst our soldiers, and in our large cities, that the mere erection of a lock hospital attracts many of them to its neighbourhood. This one fact will silence many who objected to compel these women to submit to examination and treatment. It effectually disposes of the fear that they would do all they could to avoid it. Another encouraging fact is that the conduct of the women is reported by some to be less flagrant than before the act was in force. Nor is this all; for we are informed that at Chatham alone thirty-nine have within ten months been restored to their friends or entered reformatories. A goodly number will also be returned from the other towns as having abandoned their mode of life. Now, every reformed prostitute is a clear gain to the community, and therefore we think this part of the question should not be omitted from any debate as to the extension of the act. Facts like these cannot be too frequently repeated, since the number of good and charitable people who are hostile to compulsion of this kind is very large. Nor should we omit to say that the reformatories are too few, and that those which exist are not sufficiently supported. In one a wing is planned, and the building of it is only delayed for want of money; while in another, only six were admitted on a late occasion out of twenty-eight applicants. The twenty-two refused had no hope of escaping from the life of shame and woe they were willing to quit, and so were thrown back upon the streets. This is surely a blot on our boasted christianity, an opening for our charity, a fact to make Englishmen blush. The wail of these prodigals returning to society by these half-open back doors, and thrust back to vice for want of funds, should excite the commiseration of those whose victims they have been. Let it not be repeated again and again that there is not room for the outcasts in our reformatories, nor that there is not money enough to carry on these institutions. Thousands are being squandered in less urgent cases. New charitable plans are constantly being formed. When a great scarcity occurs like that at the East-End of London, there are even rival agencies ready to contend for the ground. We trust, then, that reformatories will not be forgotten, but will be so well supported that they may be able to carry on their work efficiently.

isappeared.

One of the most perplexing problems that can vex a civilized community has lately occupied attention. The Rev. B. Speke, brother of the well-known African traveller, who came to so untimely an end, disappeared on the 8th of January, and no clue has been found as to what has become of him. He reached London by train that evening, called at the house of his brother-in-law, left his luggage there, went out and bought a new hat, ordering it to be sent before seven P.M., and from that time left no trace. He had come to town for the purpose of being at the wedding of an intimate friend the next morning, and had appointed to see another person at his brother-in-law's in the evening. That person came and waited for him an hour; then went away, leaving his address, but Mr. Speke never returned. Many conjectures have been made, but as the lost man was one of character, and is described as of "well-balanced mind," and, as his circumstances were not likely to lead to his intentionally quitting his usual sphere, the dark suspicion that he has met with foul play grows with the time that elapses since his mysterious disappearance. There is something grimly sensational in the idea that a sane and healthy man can thus be decoyed or forced away, and that the crowded streets of the modern Babylon should be as unsafe as a desert. True, the hat he wore has been found, but that affords no assistance, for it was picked up a few hours after in a thronged thoroughfare, and might have been purposely placed there to divert attention. Terrible suspicions cannot be warded off by plausible explanations. Moreover, they are strongly supported by other facts brought to light. For instance, a gentleman of undoubted respectability has related how some one, evidently acquainted with his pursuits, and pretending to be a detective, tried to induce him to enter a cab in order to drive to Bow-street, to give evidence before the magistrate in a case that might well concern him. He would not go because he had another engagement, but agreed to drive there in an hour. The false detective urged compliance very strongly, but in vain; though the gentleman would certainly have gone but for the fact that his engagement was pressing. But for this, we might have had to speak of two mysterious disappearances. Another ugly fact is that the friends of Mr. Speke have been shown a considerable number of unclaimed bodies. How have all these passed away from their usual resorts without being missed? It is, we are aware, no uncommon thing for people voluntarily to leave their homes in a strange unaccountable manner, and they are often next heard of in a distant country. But for a clergyman of a country parish to visit town, make appointments for nearly every hour during his stay, and

for his horse to be at the station to meet him on his return by a fixed train, and then in the middle of those appointments to disappear in a manner so secret as to baffle every attempt to trace him, is unprecedented. Of all the explanations that can be imagined, those are the most natural which suggest that a dark crime has been committed. Unlikely as it may be that a struggle for life took place where the hat was found, we cannot divest ourselves of the idea that this gentleman might have been decoyed into some more lonely park, perhaps on a mere pretence of charity, and robbed, and then on resistance, murdered. We would fain hope not, but the facts seem to point to this. And what a state of insecurity does this reveal in the centre of the most populous city! Every one, at any rate, ought to take warning how he trusts himself to the representations of a stranger. That incident of the pretended detective opens to view a host of dangers for cautious Londoners, much more for casual and inexperienced visitors to the metropolis.

Getting Money.

For years past this has been one of the peculiar characteristics of this country, and now, perhaps, more than ever, we may be fairly considered as a money-getting community. Our commerce was never more widely extended than it is at the present day. Men are embarking their capital in mercantile transactions to an unknown extent, and devoting their energies and their skill night and day, without intermission, to the particular mode of industry which they have chosen. These things necessarily have a mutual bearing from the interchange they create, which is, in fact, the essence of all mercantile transactions. No man can exert himself in this way without conferring a benefit on others, and hence the effect which all commerce has in advancing general civilization, and contributing to the welfare of the species in various ways, as well as creating a good feeling between both men and nations. But while all trade has a general bearing, there is no doubt that the individual motive for engaging in it is mainly the idea of profit; in other words, making money.

We have been led to these remarks by a pamphlet[1] which has fallen in our way from the pen of Dr. Gairdner, the eminent professor in the University of Glasgow, who looks at the subject from a moral point of view. He takes us back to Greece and Rome, and gives us the ideas of their philosophers and poets as to money-making. He then examines the question in reference to the condition of society in the present day, and discusses at considerable length the true principles on which all business transactions should be conducted. It would take us too far to follow him through his whole course; but there is one point we cannot overlook, and that is professional remuneration, and chiefly in regard to ourselves. He refers to Jenner, whose "example," he says, "is in accordance with a principle now firmly established in the Medical Profession, that the *status* of its members is considered to be lowered by any attempt to establish a *property* in any remedy, or other invention for the relief of disease, whether by concealment or by patenting, or otherwise advertising the invention for the benefit of its presumed owner." This is a principle which, on the whole, for the honour of the Profession, we would ever uphold. That day would be an evil one for its members in which they should descend from the high and reputable position which they now occupy to employ mean and unworthy methods of increasing their income. At the same time, we cannot shut our eyes to the fact that commerce is the high road to wealth, and that the members of an honourable profession, whose services are often more valuable than gold itself, are compelled to rest content in the usual way with the most modest remuneration.

1. On Certain Moral Aspects of Money-getting. By W. T. Gairdner, MD., Professor of Practice of Medicine in the University of Glasgow.

Venereal Diseases in the Navy.

The statistical abstract of the health of the navy furnishes a most satisfactory report of the result of the operation of the Contagious Diseases' Act in the three years in which it has been in operation. In that interval, the number of cases of syphilis treated in one quarter of the year in the Naval Hospital and Marine Infirmary, has declined from 71·6 per 1000 of the mean force first to 58, and at last to 26·3 in the last midsummer quarter. If this reduced rate be established, the effect of legislation in this great evil is a subject for marked congratulation and a triumphant vindication of the system of supervision. It is, of course, to be borne in mind that, in the case of the army and navy, the system may be applied under circumstances much more favourable than amongst the civil population—nevertheless, the three years' experience of the inspecting arrangements prove, beyond a doubt, that there is no difficulty in carrying the Act into effect; and that, when properly administered, their operation is attended with the most valuable results. Already objects have been attained of incalculable advantage to both services, and still greater gain in a social and moral point of view.

Winter Resorts.

The *London Scotsman* claims for the northern countries, and more especially for Edinburgh, a very much more genial climate relatively to that of the South of England than Scotland usually receives credit for. "The readings of the thermometer for the last three months show an average temperature for Leith for that period exceeding that of London by no less than four and a-half degrees. So that taking Edinburgh at about half a degree colder than Leith, there still remains a difference of four degrees in its favour as compared with London. The medical men of Edinburgh are now becoming alive to this fact, and generally keep their consumptive patients in town till near the end of January instead of sending them south, as used to be the practice, by the beginning of November. During the latter part of winter, and during the whole of spring, however, the temperature in the north is lower than in London, though not by so much as is usually supposed, but in the summer the heat in London is far greater than in Edinburgh. In fact, as might be expected from its position, the climate of the metropolis is more subject to extremes of temperature."

The Vacant Coronership.

The legal candidate, probably influenced by the division of the medical interest, has renewed his application. This should urge the medical men who have any influence in the matter to take active measures in support of the best qualified medical candidate.

New Books.

The last month has produced a few new books worthy of note, and many new editions of works already known to the profession. Dr. J. Matthews Duncan has issued, through the firm of Edmonston & Douglas, at the price of

18s., an octavo book of over 500 pages, entitled "Researches in Obstetrics." Dr. W. J. Little is the author of a 140 page volume, "On Spinal Weakness and Spinal Curvatures," which is brought out at 5s., by Longmans & Co. "A Synopsis of the Pathological Series in the Oxford Museum, for the use of Students, and on the plan of the Hunterian Catalogue," is issued by Macmillan; and Dr. J. I. Mackenzie is the author of a shilling pamphlet on the "Climate of Sidmouth." We receive from America two new books—Dr. Antoine Ruppaner "On Laryngoscopy," an octavo, of 160 pages, with illustrations, at 9s.; and Dr. Philip S. Wales, of Philadelphia, "On Mechanical Therapeutics," a treatise on surgical appliances, bandaging, minor surgery, orthopraxy, and the treatment of fractures and dislocations, a large illustrated work, at the price of 28s.

The file of new editions is led by Mr. Macnamara's handsome 7th edition of "Neligan's Medicines," published by Fannin & Co., at 18s.; followed by the second edition of Mr. Henry Smith's "Surgery of the Rectum;" the 11th of Dr. Southwood's "Philosophy of Health;" Mr Baker Brown on "Ovarian Dropsy;" Mr. Gamgee's "Veterinarians Vade Mecum;" and, lastly, the 8th appearance of Dr. Dewar's remarkable pamphlet on "Sulphurous Acid Gas," the new panacea for all diseases.

The Carmichael Prize Essays.

The Royal College of Surgeons in Ireland advertised more than twelve months since for essays in competition for the prize of £200 for the best essay, and £100 for the second best, on "The Medical Profession and Education," endowed by the late Mr. Carmichael. For the competition, five essays have been sent in, and three judges have been appointed by the Council to peruse them, and award the prize, if they shall find sufficient merit in any. Should the arbitrators decide on awarding the prize to any of the essayists, it will be conferred on the successful competitors in May next.

At a meeting held in the Music Hall of Edinburgh, respecting the representation of Scotland, Mr. Duncan M'Laren, M.P., has been exhibiting great hostility to the St. Andrews medical graduates with unpardonable ignorance of the whole question involved in their claim to be admitted to the franchise. We commend his remarks to the St. Andrews Association, and recommend that body to take active measures to neutralize his speech, and to oppose his return at the next election.

The Lettsomian lectures this year are on "Pneumonia and Pleurisy in Children." They are being delivered by Dr. Buchanan. The third and last lecture of the series is on Monday evening the 17th inst.

A pamphlet on "Street Tramways for London," by Charles Mackay, L.L.D., the author of "Life and Liberty in America," has lately appeared, and very properly condemns the vehicles in which Londoners consent to be transported from place to place. We wish the scheme for street tramways every success.

Sir Charles Selwyn, M.P. for the University of Cambridge, has been appointed Lord Justice of the Court of Appeal in Chancery, so that there will shortly be an election for the University.

There is a vacancy in the coronership for the University of Oxford.

The pupils of Mr. Tatum, whose retirement from St. George's Hospital we lately announced, have opened a fund for presenting him with a testimonial. Mr. Tatum has been connected with St. George's for upwards of forty years.

Dr. Wood, it is said, will not contest the seat for the London University, but retire in favour of Mr. Lowe. Dr. Wood is an LL.D. of the University, and a staunch friend of the medical graduates.

An East London Children's Hospital has been opened in the Limehouse district. Mr. Heckford is the resident medical man.

Dr. Chowne, on his retirement from the office of physician, which he has held so many years, has been appointed Consulting Physician to Charing-cross Hospital. Dr. Silver is a candidate for the vacant Assistant-Physiciancy.

We understand that the Municipal Council of Dublin has intimated to the governors of those hospitals which are in receipt of a grant from the city, that it is considered advisable that the Corporation should be represented on the directory of these institutions. Certain of the hospitals have responded to this suggestion by the election of three members of the Town Council into their administrative committees, and it is probable that the request will be universally acceded to.

We learn with much regret of the very alarming illness of Mr. Ledwich, the esteemed chief of the Ledwich School of Medicine in Dublin, and Surgeon to Mercer's Hospital. The illness under which Mr. Ledwich suffers is rheumatic gout in an aggravated form, and of a retrocedent character. Our inquiries, as we go to press, inform us that the attack remains unmitigated, but not aggravated within the last few days.

THE PAST MONTH.

Those who watch our weekly abstracts of the bills of mortality will have noticed that January, 1868, has been an unusually healthy month. Altogether nearly 800 deaths less than usual were recorded. In the very coldest part of the month it was observable that the mortality fell considerably, so that the relations between weather and disease are not yet fully appreciated by those who look upon severity as a necessary calamity. The weather was not only unusually severe, but very unsettled and changeable; it was a month of violent atmospheric disturbances as well as keen frosts, and excessive fall of rain.

We extract from Mr. Allnatt's interesting summary the following particulars of the meteorology of the month:—

"Cloud.—From the 1st to the 7th, during a succession of bitter frosts, the sky was completely covered by an impervious canopy of cloud. On the latter date the sun shone throughout the day. From the 8th to the end of the month the prevailing modification was the cirro-cumulo-stratus nimbus, or true rain-cloud.

"Wind.—Dreadful tempests, characteristic of circular storms, committed wide-spread destruction on sea and land throughout England and portions of Continental Europe; they were generally equatorial, and ranged from S. to S.S.W. and S.W.

"Thermometer.—From the 1st to the 7th the day temperature ranged from 24·0 deg. to 29·5 deg., showing a variation of 5·5 deg., and an average of 26·7 deg., which is upwards of 7 deg. below the mean. The range of Fahrenheit's thermometer was from 5 to 12 deg. below the freezing point. In the second week, from the 8th to the 14th, the temperature was subject to greater oscillations. The mean was from 28 to 44·2 deg., a difference of 16·2 deg. From the 16th to the 31s

the nightly range was from 29 to 47 deg., a difference of 18 deg., and the range of mean daily temperature, deduced from two diurnal observations, from 47·7 to 31·2 deg., giving a total range of 16·5 deg. Frosts occurred nightly up to the 12th, and again on the 20th and 21st.

"Barometer.—The range of the barometer (600ft. above the sea-level) was from 28·70 to 30·00 inches, making the ultimate variation 1·30in. The *minimum* registration was during and on the two days preceding the gale and heavy rainfall of the 22nd, when the oscillations were as follows:—On the 20th, 28·70in.; 21st, 29·40in.; 22nd, 28·70in.; 23rd, 29·35in.; and on the 24th, 29·90in.

"Snow and rainfall.—The mean depth of snow deposited on level ground in tranquil spots was about four inches, two inches from a fall on the 1st, which lay till the 5th, when sleet and rain occurred, the surface became partially thawed, and a pellicle of ice formed. On the 6th two inches more fell, and the superficies again became frozen. On the 8th, the same process was renewed, so that there were in undisturbed places three impervious layers of ice-bound snow.

"On the 12th, at 8 p.m., the wind having become almost due S., the thermometer, which had sunk to 28 deg., rose to 32 deg., and a thaw set in. At 9 p.m., the accumulated solid ice fell from the branches of the high trees with successive crashes of considerable violence. On the evening of the following day the snow had almost entirely disappeared.

"Great floods are reported from various parts of England and destruction of property; the aggregate amount of united snow and rainfalls was upwards of 2·50in. above the mean. The tempest on the 16th was attended by lightning and thunder, and torrents of rain fell into the sea near Eastbourne.

"Barring the minor frosts there were during the past three months, thirty-one nights on which the temperature fell several degrees below Fahrenheit's point of congelation. In November there were three, in December sixteen, and in January twelve."

Society Proceedings.

SURGICAL SOCIETY OF IRELAND.

Dr. ADAMS, President of the College, in the Chair.

(Continued from page 123.)

MR. R. MCDONNELL read the following paper:—

CARIES.

Mr. PRESIDENT AND GENTLEMEN,—I wish to bring under the notice of the Society some cases which I conceive are well calculated to elicit some discussion on an eminently practical question—viz., How far the method of treatment by caustic advocated by Dr. Kirkpatrick is applicable to diseases of bone, especially diseases of bone in the vicinity of joints?

When novel, I may almost say, startling, propositions of this kind come before a body of practical surgeons, such as I see around me, some of them at once recommend themselves to us for trial; we say at once, that sounds like a good proposal; we almost wonder sometimes that it has not been thought of sooner, and, if I may use the expression, our surgical sense tells us that we are justified in putting the new operation or method of treatment to the test of experience; yet, when weighed in this balance, it may be found wanting.

On the other hand, some of these novel proposals which do not at first recommend themselves to us, which do not sound to us like good sense and good surgery, have been found by experience to be real acquisitions to the science and art of surgery.

If we were now considering, for the first time, the proposal of amputating at the ankle-joint after Mr. Syme's method, I doubt if this operation, which we now admit to be oftentimes so good in practice, would, when as yet untried, stand much in favour.

I feel tolerably certain that the treatment of stricture of the urethra by the immediate plan if, in ignorance of its practical results, it was now under debate, on theoretic grounds it would be condemned. Yet, experience has established it as good practice.

While I admit, therefore, that surgeons must generally look to results, and that the progress of surgery must ever be eminently tentative, yet that is no sufficient reason why every wild project is to be put to the test of experiment.

I should be sorry to be understood to apply the term wild project to Dr. Kirkpatrick's proposal for the treatment of bone affections, yet I may be permitted to say that, in my judgment, it is not one of those propositions which, as I have said, recommends itself to us at first sight. It must fight its way up hill before it can obtain general adoption. It must fight its way not, I conceive, so much against prejudice as against a well-grounded caution.

As the plan is by no means free from pain, as it is applicable to disease most liable to occur in frail, irritable subjects, and one which, under any treatment, has a tendency but too often to go on from bad to worse, medical practitioners will be naturally timid about having recourse to a method of treatment which causes suffering, and which may be blamed for what is in reality only due to the natural tendency of the complaint itself.

Yet I am quite satisfied that, at the hands of the members of this Society, Dr. Kirkpatrick will meet with praiseworthy promptness in impartially considering the merits of his proposal, a candour in renouncing prejudices, in short an anxious desire to give their approval to the plan should it prove fairly deserving of approbation.

The following are the cases which I wish to bring under the notice of the society:—

Case 1.—Denis Blayney, aged 21 years, was admitted to Dr. Steevens' Hospital on June 8th, 1867, suffering from disease of the left knee-joint. The patient was a member of a phthisical family, and from childhood had suffered from occasional pain and weakness in the affected joint. Twelve months before admission when leaping out of a cart he had strained the knee; for a time after this injury he suffered acute pain in the joint, but this gradually subsided, so that he could walk with a stick.

On admission the joint was swelled, an abscess had formed and burst near the head of the fibula; the patient could flex and extend the knee to a considerable extent without pain. When the patella was pressed upon it was found not to be floating, it did not strike against the femur. At this time the patient could walk with a stick; he suffered more from a feeling of painful fatigue in the joint than from absolute pain. His rest was not broken by startings of the limb at night.

His treatment consisted of nourishing diet, cod-liver oil, syrup of the iodide of iron, and a neatly adjusted fixed apparatus, which kept the entire limb in a state of absolute rest.

In spite of every precaution a large abscess formed above the knee; the patient's general health suffered, and his rest was broken by painful startings; amputation was performed on September 14th; the patient made a good recovery. He was able to leave his bed in three weeks, and was dismissed from hospital on November 14th, 1867.

It is the condition of the knee-joint that I wish to direct particular attention.

Dr. McDonnell proceeded to say that in this case acupressure was used, and there was an interesting fact connected with it which he might mention. The flap operation was performed, and Mr. William Stokes, who was present, kindly assisted, and with great dexterity applied the needles on the vessel. Forty-eight hours afterwards these needles were withdrawn, and as no hæmorrhage came from the smaller vessels, they thought they would remove that which compressed the femoral artery also. When the needle was withdrawn, a spurt of blood came right across the bed three times with such force as not to leave the slightest doubt that it was from the femoral artery it came. He (Dr. McDonnell) immediately pressed on the groin, and kept up the pressure for fifteen minutes, until a spring compressor was brought. When he withdrew his fingers for a moment to allow the compressor to be applied, there was no return of the bleeding. Afterwards, in the evening, he removed the compressor, and there was no return of bleeding, but he was so apprehensive on the subject that he reapplied the compressor, and one of the pupils remained by the bedside of the patient all night. Dr. McDonnell then exhibited a drawing showing the condition of the knee-joint. The comparative state of health of the right side, as compared with the left side of the joint, was remarkable. The cartilage remained, and was healthy, while on the other side it was entirely gone. The portion of the femur was denuded of cartilage, and the inside of the patella also. Now, although the cartilage was gone, the patient repeatedly, and even the day before the operation, pressed his patella down, and said it did not give him any pain. Dr. McDonnell then showed the bones: On the right side the cartilage was to be seen quite healthy, and when he made a section, and threw it

back, it was found to be as thick as ever, and not eroded in the place near the bone. They could see the diseased bone, and also the back of the femur; where the periosteum was thickened and thrown back there was to be seen very extensive disease of the bone. On the tibial side there was healthy cartilage, on the other side the cartilage was entirely gone, and a series of sections were made, showing the condition of the bone filled with what might be called tuberculous matter. It became smaller as it went down, so that there they had the apex of a cone. The patella was entirely denuded of cartilage. In the head of the tibia it was cancellated disease, and not to so great an extent as that of the femur, although the disease was existing in both bones.

Case 2.—Henry Grady, aged 58 years, was admitted to Dr. Steevens' Hospital on July 10th, 1867, suffering from disease of the left ankle-joint and bones of the foot. It is needless to give a detailed account of the case; it was one of destruction of the ankle-joint, and complete disorganisation of the surrounding structures from the so-called strumous disease, commencing five years before.

On admission the patient was in a wretchedly debilitated state ; by tonic treatment he improved so far that on August 17th he was deemed in a fit state for operation, and the limb was amputated below the knee. He made a good recovery, and left hospital on October 23rd.

We have before us the diseased parts.

Dr. McDonnell then exhibited the diseased specimens. He had made a section right through the middle, and they now had one-half of the tibia macerated, and showing, in a very beautiful way, a throwing out of new bone, and also the diseased structure like melted sugar. In the other portion the cartilage was entirely gone, but the ends of the bone were not occupied by granulation as in the other case. The bone was bare, the disease was not limited to the end of the tibia and the astragalus, but all the bone was diseased, and was as soft and as easily cut as a piece of cheese. The whole of this structure had undergone that kind of fatty degeneration which was found in those affections called strumous, or scrofulous disease. He did not think that a good term, for although it occurred in strumous subjects, they did not find it to contain those deposits under the microscope, which were found in tubercle of the lung.

Case 3.—Mary Anne Champ, aged 26 years, was admitted to Dr. Steevens' Hospital on September 6th, 1868, suffering from an affection of the left foot. She stated that some six months before she had given the foot a twist, and that since then it never had been comfortable; she was easily tired on it, and in walking could not spring on it. The arch of the foot was puffed, and there was a distinct swelling over the cuboid bone. A small abscess came forward at this point and broke. After this she left hospital on October 28th.

By an accident, however, the diseased foot got another twist, and this seems to have given an impulse to the disease. Abscesses formed on the dorsum and sole of the foot. The patient's rest was broken with distracting pain only relieved by large opiates. and on December 14th she returned to hospital to seek relief by amputation.

I performed Syme's amputation at the ankle on December 14th.

The patient has since gone on remarkably well, and is now convalescent.

Dr. McDonnell said that in this case he had also used acupressure, and nothing could have been more satisfactory. The needles were withdrawn without the slightest hæmorrhage at the end of 48 hours. These were the cases he had to bring before the Society. He had no opinion to give. He held no view as yet on the subject of treatment by caustic. He considered it an open question, but before adopting it as a practice, he thought they were bound to look carefully into the pathology of cases like these, and ask themselves the question whether, considering these things seriously, they could reasonably expect good results from the treatment by caustic in cases of this kind? In the last case the cartilage was nearly gone, eroded between the metatarsal bone of the great toe and the internal cuneiform. In the next articulation the cartilage was gone also, and in the third the joint was healthy. In these three specimens they had an excellent illustration of this kind of bone disease extending to the joints, and they were bound to study very closely the pathological conditions before they adopted the mode of treatment proposed by Dr. Kirkpatrick. In the first and second case the disease had undoubtedly made very extensive progress. The third case might be one in which Dr. Kirkpatrick would have thought his treatment more suitable ; but he (Dr. McDonnell) did not think it was likely to have done much good. Having seen the appearances which the bone presented, he did not now regret the course he had adopted. He might say that Dr. Kirkpatrick saw two of the cases, and spoke of them as cases to which he thought his mode of treatment might have been applicable, but he did not know whether, if, under his own care, he might not think them too much advanced for it.

Dr. KIRKPATRICK said, although he professed himself most strongly in favour of the treatment of diseases of the bones and joints by means of caustic, he had not put it forward as capable of effecting a renovation in cases such as the first and second specimens exhibited to the society by Dr. McDonnell, where total disorganization of all structure had taken place. His treatment was specially proposed for arresting disease at its outset in the cancellous structure. He also recommended it in more advanced cases, but where disease was still limited in extent so that an incision being made the caustic can be brought into contact with the carious bone. But in the paper which he read before the British Medical Association, he advised against interference where the remedy could not be brought into contact with all the diseased structure. With the permission of the Society, he would read the extract he alluded to :—

"Although strongly recommending this treatment for the early stages of acute articular osteitis, and also for the very advanced periods when caries is established, or when a whole joint is converted into a foul suppurating cavity, my experience does not warrant me in advising the practice so strongly in the intermediate periods, where the head of a bone may be the seat of a diffused suppuration, possibly communicating with the joint itself. The caustic, I fear, in this condition of parts could not extend sufficiently to protect from the constitutional disturbance and risk of pyæmia that might follow.

"In fact, the remedy cannot be brought into perfect contact with all the diseased structure, and thus the caustic tunnel, which is safe and effectual, acting as a drain and relieving tension when employed in the case of simple articular osteitis is an unsafe remedy when introduced into the cancellous structure of a bone, when purulent softening is only commencing, at it may produce irritation, and be followed by abscess and constitutional disturbance."

In Dr. McDonnell's third case, he thought the caustic treatment might have been fairly tried. He had further to remark that during the last six years that he had been engaged in following up this treatment, he had read in the London journals several cases when, after excision or amputation, disease of very limited extent was discovered, which, in his mind, would have been easily reached and removed by the caustic application. This treatment which he had brought forward was not a mere matter of theory, for he had always several such cases under care at the North Union, which he should be happy to exhibit to any member of the Society who might honour him with a visit.

Professor HARGRAVE said the drawing exhibited by Dr. McDonnell appeared to him to be a representation of the state of the knee-joint as described by Sir Benjamin Brodie, when the disease commenced in the synovial membrane, and extended to the bone. There was a point in connection with disease of the knee-joint to which he thought they were not sufficiently attentive. They were too much inclined to say the patient suffered from disease of the cartilage, and too often overlooked a more serious disease—namely, where the disease occurred in the cancellated structure. The disease more frequently commenced in that structure, it gave intense pain, and extended to the knee-joint, implicating the cartilages and other structures. He was satisfied that a cure might be effected in many cases with sufficient pains, time, and rest. The work lately published by Mr. Hilton on rest in pain was most valuable ; and his own experience in the hospital with which he was connected fully confirmed all that Mr. Hilton had so well said on that subject. If they carried out that principle they would hear but little of excision of the knee-joint. Not long ago he got a hint from an American journal which he found useful in these cases—namely, to keep the leg extended, and thereby prevent the cartilage of the knee from pressing against the femur. This could be effected by placing two or three slips of adhesive plaister from the knee-joint to the foot.

Dr. STAPLETON said he thought Mr. O'Ferrall deserved great credit for the valuable suggestion of deep incisions down to the great trochanter in hip disease. The greater number of diseases of the joints commenced, not in the cartilages of the joint or in the synovial membrane, but in the cancellated structure.

If Mr. Kirkpatrick meant to say that where the disease was commencing in the cancellated structure of the bone he would cut down, divide the periosteum, and introduce caustic, he would reply that if caustic were introduced into the cancellous structure, they could not tell how far it would extend the area of the mischief. He saw a case once with the late Dr. Banon in the Mountjoy prison, in which case, an incision of six inches down to and along the tibia where the periosteum was thickened, gave the greatest relief. Where there was great tension much good would be effected by relieving the tension. He had seen cases where matter was formed in what was once a joint; he had cut freely into it and let the matter out, then put on a splint, and sent the patient out with an ankylosed joint. A case once occurred under his care in which there was disease of the tarsus. He brought down all the requisites for performing an operation, but when the patient saw the instruments he got frightened, and went away. Sometime afterwards, when the Crimean war had terminated, while driving through town, a soldier ran over and caught his horse's head, "Don't you recollect me, sir," said he, "I'm the boy that you were going to operate on." He then stated that he had gone to Clontarf, remained quietly there, and his foot got better, and he was allowed to enlist. The marks of the cicatrices were there, but the man was cured.

Dr. FLEMING said he had had an opportunity of witnessing the progress of these cases in Steevens' Hospital, and of seeing the operations performed, and he thought the society was much indebted to Dr. Macdonnell for bringing them before the Society this evening.

Dr. MCDONNELL, in reply, said the cases he had brought forward owed their interest to their being common. Dr. Kirkpatrick had spoken of his mode of treatment as a preventive measure. Now, although he was very anxious that every fair opportunity should be given of testing it, he thought it was difficult to have recourse to that method as a preventive measure in many cases. No person knew better than their President how insidious these diseases were. Professor Hargrave spoke of intense pain; but none of the cases he had shown that evening were accompanied with intense pain. They belonged to that class where the disease occurred in the cancellated structure, and was not accompanied with pain. People affected with this disease did not generally complain of pain; they complained rather of fatigue; they sit down and say their knee is aching and tired. Persons thus affected would walk about for a long time with the aid of a stick. Now, if in cases of this disease, they were to have recourse to caustic when were they to apply it. He should be very unwilling, while as yet there was no abscess, and the joint was capable of being flexed and extended to cut down, and bore in and burn out the diseased part. That was the practical point to consider. He did not think this was an example of the knee-joint as described by Brodie. It was rare to have a joint where one side was more diseased than another, where the cartilage was firmly attached to the bone on the one side, and gone on the other, one-half of the joint being very nearly healthy, while the other was in an advanced condition of disease. They all knew that in the treatment of these cases in the early stage, rest was most important, and the maintenance of the patient's strength, giving them good food, cod-liver oil, and wine. As a preventive measure, he would rely on these means rather than adopt a treatment which was not free from pain, and which might gain for the surgeon what the discredit of causing that which was the natural result of the disease.

Mr. B. WILLS RICHARDSON then read the following paper:—

IMITATIVE TUMOUR OF THE BREAST—ADENOCELE OF BIRKETT.

Mr. PRESIDENT,—The specimens I have the honour to exhibit to the Society, were taken from a tumour Dr. M'Dowel asked me to examine a few weeks ago.

The tumour was removed from the breast of a young girl, and was so excellent a specimen of the mammary glandular tumour of Paget,—the chronic mammary tumour of Sir A. Cooper, that I preserved some sections of it, four of which are under the microscope upon the table.

In these sections the lobulated appearance is very well marked, each of them appearing to be covered by small lobular projections, which are filled by nuclei and nucleated cells, like the similar structures found in the acini of glands. The cells, however, are not very distinctly seen with the glass beneath which they are placed, it not being of sufficient amplifying power for the purpose.

He should have observed that the tumour itself was enclosed in a strong cyst, which isolated it from the surrounding gland substance.

When cut, the tumour looked like mammary gland, was pale in colour, remarkably firm, but was free from fat.

I am unable to throw any light upon the point of departure or mode by which the pseudo-glandular tumour commences. Notwithstanding, I am inclined to the opinion, that it is congenital, and that the breast at birth contains the nidus for its development, which remains latent for a varying period, in some persons becoming active sooner than in others.

If I might venture to suggest a new name for the mammary glandular or adenoid tumour, I think the term *imitative*, if applied to it, would be useful in a didactic point of view, owing to its more or less perfect simulation of the gland structure.

Before the members examined the specimens, I should mention that they are not their natural colour, having been stained with Beale's carmine fluid, and a solution of aniline black in acetic acid. I have found that if scetions of certain tumours are first stained with the carmine, and then subjected, for four or five days, to the action of a few drops of the aniline black solution in glycerine, they are much improved in colour, becoming of a rich crimson. Indeed, he has several must instructive sections of tumour, stained with the acetic acid solution of aniline black alone.

The meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 20, 1868.

Mr. HENRY SMITH, President, in the Chair.

DR. SANSOM read a case illustrating the use of the ophthalmoscope in medical diagnosis. A boy aged 11, came under his care at the Royal Hospital for Diseases of the Chest, suffering from emaciation and signs of incipient pulmonary tubercles. Besides these signs, there occurred daily headaches of such extreme intensity as to give rise to the fear of tubercular meningitis. By ophthalmoscopic examination, however, the fundus of each eye was found paler, and the vessels smaller than is normal. There was also an exact similarity in the appearance of each. Dr. Sansom considered that the absence of hyperæmia, and the perfect agreement of the signs on each side negatived the idea of intracranial tubercle. Under the influence of cod-liver oil, bromide of potassium, and iron, the boy steadily improved, and the headaches are now passing away.

The PRESIDENT exhibited the metatarsal bones which he had removed in a partial secondary amputation of the foot. The patient had had his toes removed some time since, in consequence of frost-bite, and the stump never healed. He, therefore, laid open the part, and removed a further portion of the foot, and on examination it was found that there was a cavity extending down the centre of the metatarsal bone of the great toe, which had no doubt prevented the union of the stump.

Mr. GAY then read the paper of the evening, on "Varicosity in Relation to Ulcer." He commenced by saying that his classification of ulcers was based on the pathology of the disease. He divided them into three classes: 1st, the idiopathic; 2nd, the venous; and 3rd, the arterial. The first variety, he said, depend on some peculiarity, local only, of the vascular system, and was usually situated between the ankle-joint and the calf of the leg. In the treatment of this, the author advocated rest, and if the ulcer became chronic, and its base thickened, recommended a lotion of nitric acid and opium, or even, in some cases, a blister to the part. The typical form of this ulcer was "the broken skin." In speaking of the second variety or "venous ulcer," the author said, this was frequently associated with a peculiar bronzing of the skin, which might be traced to obstruction, by clot of either the siphenous vein or the deep venous trunks generally of the latter vein. In treating this form of ulcer, Mr. Gay recommended free elliptical incisions along either side of the ulcer, as being the only plan to ensure a permanent cicatrization. The author then dwelt on the so-called "varicose ulcer," and spoke of the complete uselessness, as he thought, of the spiral bandages. He said that, as a rule, varicose veins are not endowed with valves, and that in the veins in which they do exist, the current of blood is not interrupted by the valves. The bandage, on the other hand, does interrupt the current of the blood. He then passed on to the third variety of ulcer, "the arterial," which might invariably be traced to disease of the

arteries, especially of the anterior and posterior tibial. This ulcer very often occupies the whole of the leg, and spreads so as to invade every structure with which it comes in contact. Amputation in such cases is a very hazardous proceeding. Rest and opiates were the most suitable remedies.

In the discussion which followed, the President, Mr. Bryant, Dr. Head, Mr. Adams, and others, took part.

Correspondence.

DR. SINCLAIR AND MR. PHELAN.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your journal of the 15th ult., Mr Phelan, adverting to my communication to you of the 18th of December last, states that I therein intimated he had "made an attack on the Rotundo Lying-in Hospital," in the paper which he published in the February number of the *Dublin Quarterly Journal* for 1867. He likewise asserts, that I have, in that same letter to you, accused him of having "brought forward the statistics of the Rotundo to prove the baneful influence of lying-in hospitals, and excluded those of the Coombe in a remarkable manner;" lastly, that I have stated he had "made it appear that the Rotundo is chargeable with increasing the immorality of the city." These three accusations are denied by Mr. Phelan in his letter to you of the 15th ult.; to which letter, so characteristically ingenious, you will, perhaps, allow me an opportunity of replying.

First I shall state what I *really did* say on these topics in my letter to you of the 18th of last December. You may remember, in that communication, my having sketched a letter which I considered would have been an appropriate one for Dr. Kidd to have addressed to Mr. Phelan, after having perused the paper the former had received, for publication, from the latter. It is from this apocryphal note Mr. Phelan has collected these three accusations.

With respect to the first, I made Dr. Kidd—the Editor of the *Dublin Quarterly Journal*—as it were, thus address Mr. Phelan—"You may say what you like respecting the Coombe and the Rotundo in connection, as lying-in hospitals, but in my (Dr. Kidd's) journal I should not like anything to appear, *which might be considered as a marked attack upon* the latter."

With reference to the second accusation, I put the following words into Dr. Kidd's mouth: "You (Mr. Phelan) will observe that you have brought forward the statistics of this hospital (Rotundo) in your endeavour to prove the baneful influence of lying-in hospitals, and have excluded those of the Coombe in a remarkable manner; yet, you must know, that the Coombe comes under the same objections."

The third accusation is contained in the continuation of the sentence last quoted, as follows: "but, moreover, you make it appear that the Rotundo is chargeable with increasing the immorality of the city."

Another quotation from the same source might be construed into a fourth accusation, viz., where I say, "In fact you, Mr. Phelan, appear in the main portion of your argument, *reticent concerning the Coombe, and seem to throw all your shafts against the Rotundo*;" but of this Mr. Phelan takes no notice. That the opinions embodied in the above so-called accusations are held by me, and, I may say, by my "seven associates," I have no hesitation in asserting, and I shall now endeavour to prove, that such opinions are not unfounded.

The first and second accusations I shall take conjointly, for if guilty of the second, I shall make it apparent that Mr. Phelan cannot be innocent of the first.

Mr. Phelan's paper in the eighty-fifth number of the *Dublin Quarterly Journal* pretends to consider "The comparative advantages of affording obstetric attendance on poor women in lying-in hospitals and in their own homes."

He attempts, in this paper, to prove that home treatment for lying-in women is preferable to the treatment of such in hospitals, on account of the immunity from disease and death amongst those delivered under the former system as compared with those "confined" in hospitals, puerperal fever and contagion being the chief causes of mortality amongst the inmates of the latter. For this purpose he makes some cursory allusions to English and foreign statistics, but relies chiefly upon those of Dublin, with which latter he naturally fancies he is personally more familiar, in consequence of his position as Secretary to the Board of Superintendence of the Dublin Hospitals.

It is essential your readers should bear in mind, the better to understand my argument, that there are two lying-in hospitals in this city, the Rotundo and the Coombe.

Now, this paper of Mr. Phelan's, to which I would beg leave to refer your readers (in the eighty-fifth number of the *Dublin Quarterly Journal*), runs over 22 pages—*i.e.*, from page 71 to page 92.

The following is an analysis of its contents:—One page and a-half is devoted to selections from the Registrar-General's reports. Two pages contain statistical results from Mr. Simon's reports, and half a page is taken up with some statistics from the work of M. Leon Le Fort.

There are, then, four pages of the twenty-two occupied by what may be termed preliminary matter, or rather data prefatory to his onslaught.

The remaining eighteen pages will be found to be consumed for the most part as follows:—More than *two pages* are taken up with extracts from Mr. Simon's sixth report to the Privy Council. These extracts contain opinions rather condemnatory of lying-in hospitals, and make special allusions to the Rotundo Hospital. Upon reading one of these quotations, as given by Mr. Phelan, page 77, *Dublin Quarterly Journal*, No. 85, one would suppose that Mr. Simon had, in it, made no allusion to "the other Lying-in Hospital" of Dublin, as the quotation from his report *has not been faithfully quoted by Mr. Phelan*—not to mince matters—*it has been uncandidly stated by him.*

In the original, Mr. Simon has, with his accustomed justness and accuracy, shown, that the very large death-rate which occurred during a certain year in the Rotundo Hospital, was more apparent than real. He also informs us that the chief cause of mortality during that year—puerperal fever—*was not confined to the Rotundo, but likewise prevailed in the other Lying-in Hospital, and was rife throughout the city.* All these matters, which ought to have appeared in the middle of the quotation from Simon's report, have been omitted by Mr. Phelan without acknowledgment; the two ends of the paragraph having been brought together, to make it appear as if the first half and the last were directly continuous. Therefore, the public are led to believe, from the quotation thus given, that puerperal fever was to have been met with *only* at the Rotundo Hospital during this period; and, no doubt, this was the idea Mr. Phelan intended to impress upon his readers, *for it is idle to suppose that this misquotation was not intentional.*

To continue the analysis.—Extracts from a paper by Dr. Telford, in which that gentleman gives an account of an epidemic outbreak of puerperal in the Rotundo hospital, occupies *two pages.*

The partial consideration of the question, as to the effect certain modes of admission may have upon the health of lying-in hospitals, illustrated *solely* by the prevailing custom of the Rotundo hospital, fills *nearly four pages.*

Now comes a remarkable paragraph, which occupies nearly a quarter of a page. It contains a statement to the effect that, according to Johnston and Sinclair, 67 mothers died in the Rotundo Hospital, after purely natural labour, 41 of which succumbed to puerperal fever. Here the author omitted to state that this mortality extended over a period of seven years, and as many as 11,876 deliveries; also, that of this number, though classified under the head of purely natural labour, *i.e.*, those labours in which the head was the presenting part and which were delivered at or within twenty-four hours without instrumental assistance, many were, nevertheless, in an unhealthy condition from various causes. On the contrary, Mr. Phelan states that "as their labours were *natural*, they did not go to hospital on account of malformations, or from apprehension of difficult labours," thus leading the public at large (for whom, it appears to me, Mr. Phelan chiefly writes) to believe that all these women were robust and healthy. What a terrible revelation—sixty-seven robust and healthy women lost *in the Rotundo Hospital after purely natural labour*, 41 of which died of puerperal fever—this *artfully* worded sentence, contains, *for the non-professional reader.* In my opinion this was so arranged to create a hostile sensation against the Rotundo. In the same page (86, *Dublin Quarterly Journal*, number 85), appears a paragraph, nearly half the length of that page, commencing thus:—"The high mortality in lying-in *and other hospitals*, and its frequent occurrence, will be perceived by the table at page 92."

On turning over to page 92, the last of this peculiar production, *its whole length* will be found occupied by a table, judiciously arranged, (as all Mr. Phelan's statistical tables are), showing the death-rate of the women and children *in the Rotundo Hospital only*, (though no heading exists to show from

whence the data have been collected) from the year 1760 to 1864. Then comes the "*application*" of this table, thus, "applying the foregoing returns," (*i.e.*, those deduced from the table at page 92), "and observations to the Rotundo Hospital, we see, &c., &c." Applying the Rotundo Hospital's own statistics to the Rotundo Hospital, *to show "the high mortality in lying-in and other hospitals*!"

Did Mr. Phelan write under the impression, that his readers would not give themselves the trouble of turning over the leaves to look at this table at page 92. Some, he must have been aware, would do so; and they, of course, could not arrive at any other conclusion, than that this table did not afford the information Mr. Phelan had asserted was to have been found there.

At page 88, evidence is given of infectious fever being occasionally introduced *into the Rotundo Hospital*, and the question is mooted as to the effect such introduction may have upon the origin of puerperal fever; all this is argued in connection with the Rotundo Hospital *only, for one page.*

At page 89 "the mortality of children in lying-in hospitals" are asserted to be given; but the only data bearing upon this point, are those derived from the Vienna Lying-in Hospital, the census of Ireland at large, without naming special institutions, and, minutely and particularly, the infant mortality of the Rotundo Hospital.

At page 90 is given a table *which fills that page*, "showing the mortality of children born in the Rotundo Lying-in Hospital under different masters, and the proportion of such mortality to the number of children born alive."

At page 91 a statement is made relative to "still-born children," viz.—the proportion of such to the births at large. Here are given the statistics bearing on this point: of the Austrian dominions, of Trieste, and of the Vienna Lying-in Hospital; but the statistics of the Rotundo *are the only home data mentioned.*

Reviewing the matter contained in this paper of Mr. Phelan's, as carefully as possible, I may fairly state, that of the 18 pages I was bound to account for, 14 (under the mark) are altogether taken up with remarks relative to the Rotundo Lying-in Hospital.

I shall now turn to the other side of the picture.

One page (71, *Dub. Quar. Jour.*, No. 85), the first, of the paper is occupied by statistics to show that the "other lying-in hospital" does proportionally more on a smaller income than the Rotundo. This is most ingeniously managed, under the plea of attempting to prove that home attendance is cheaper than hospital treatment—*a fact not requiring proof.* In addition to this page, one line and a-half, at page 47, is devoted to the statistics of the Coombe Hospital, as follows—"During these seven years 3142 deliveries took place in the Coombe Lying-in Hospital, and 45, or one in 70, died;" and two lines more, stating the Coombe's extern mortality, at page 75. This is the amount of prominence given to the Coombe's statistics by Mr. Phelan; while I have demonstrated that almost fourteen pages, out of eighteen, have been occupied by those of the Rotundo Hospital, and I shall presently show that *nearly three more* are consumed upon the same theme, making nearly 17 out of the 18 I had to account for.

I now inquire, am I not correct in stating that Mr. Phelan has "brought forward the statistics of this hospital (Rotundo) in his endeavour to prove the baneful influence of lying-in hospitals, and" has "excluded those of the Coombe in *a remarkable manner*?" And, moreover, does not Mr. Phelan "know that the Coombe comes under the same objections as the Rotundo?" Why has this partiality been exhibited?

Again, when the animus, so apparent throughout this paper, as exemplified in the unfair way in which statistics are used to suit his purpose, and the manner in which quotations have been tampered with for a similar reason; when, I say, this animus is added to the evident gibbeting he has given the Rotundo Hospital, am I, or are "my associates," wrong in arriving at the conclusion that, in addition to partiality, Mr. Phelan has been guilty of "making an unfair and insidious attack upon the Rotundo Hospital?" Before I proceed to the consideration of the third accusation, I must say a word or two, touching my "*puerilities.*" I demand an answer from Mr. Phelan with respect to a few of them. For example—

Why were the quotations from Simon so *modified*, especially that one at page 77 of the paper, and to which I have made particular allusion?

Why were Johnston's and my statistics of natural labour, stated in the manner in which they are to be found at page 86 of his paper?

When he was endeavouring—if such really was the case—*to arrive at the truth of the important subject concerning which he was writing*, why did not Mr. Phelan give the statistics of the other lying-in hospital as regards epidemic and sporadic puerperal fever; the mortality of natural labour; the death-rate of children; the proportions of still born to the births at large, &c.?

Are the modes of admission into the Coombe so different from those in connection with the Rotundo, as to preclude the possibility of any ill effects from the occasional accidental admission of contagious diseases to the wards of the former? One would suppose, from Mr. Phelan's silence on this point with regard to the other Dublin Lying-in Hospital—his reticence regarding the Coombe—that the Rotundo Hospital was singular in this respect. Why did not Mr. Phelan place a table of the mortality of the Coombe beside that of the Rotundo Hospital?

Now, with respect to the third accusation, "moreover" he makes "it appear that the Rotundo Hospital is chargeable with increasing the immorality of the city." To this Mr. Phelan replies—"I deny that there is one word in my paper *charging the Rotundo, or its authorities, with increasing the immorality of the city, and Dr. Sinclair has not quoted any.*" Now, I never stated Mr. Phelan *did* say anything *directly* of this nature in his paper. He is too experienced a hand at the formation of his productions to commit himself thus, but *I do now assert he has made it appear* that the Rotundo Hospital increases the immorality of the city. I shall go farther and say, that in my opinion—an opinion by no means singular—Mr. Phelan intended this odious impression should get abroad, and have upon society the effect he aimed at producing. That Mr. Phelan makes it appear the Rotundo Hospital increased the immorality of the city, I shall now endeavour to demonstrate.

At page 84 of Mr. Phelan's paper he says:—"Dr. Shekleton's evidence shows that the abandoned, as well as the virtuous, could take advantage of the hospital" (the Rotundo) "and that *no rule, or bye-law, existed to check the repeated admissions of women of the former class*, and I am not aware that any now exists. It is true, as before observed, that when, and long after, the hospital was founded, there was no workhouses to which the immoral class could have recourse when about to be confined; but for many years before that evidence was given they were admissible into all the Irish workhouses as paupers. The *necessity*, therefore, that existed for the admission of this immoral class had long ceased in 1854, and their admission cannot, nor could not, be fairly deemed an act of necessity, nor of charity. *Viewing the subject in a moral sense, it appears likely that such women would be more checked in their career by being compelled to have recourse to the workhouse, where they would have less, though still sufficient, comforts than if received into a superior institution where the stigma of their habits is much concealed.*" What are the most natural inferences for the public to draw from this quotation? Surely it is not unreasonable to suppose they would be as follows:—

First. Women of the immoral class, were they *compelled* to enter the poorhouse for their confinements, would have but limited comforts, and the stigma of their habits would not be altogether concealed; in other words, their immoral condition would be made apparent to the other inmates by some means or other. The immoral class, therefore, if they knew they would be forced to enter the poorhouse, when illegitimately pregnant, would be less likely to incur the risk of illegitimate pregnancy, and so crime would be checked.

Second.—The Rotundo Hospital admits this immoral class; affords the members of it every comfort within its means, which comforts are much superior to those of the poor-house; above all, the poor traviata, or the seduced and "abandoned" one, experiences in the Rotundo not only the comforts of a home, but the kind sympathy of all around her, *more especially exemplified in the silence that is there maintained regarding the past.* Therefore, the Rotundo Hospital does not tend to lessen immorality by such solicitude.

Third.—The immoral woman who illegally incurs pregnancy, knows she can obtain easy admission into the Rotundo when her labour approaches; so that she is not only unarrested in her career of sin, by the inevitable prospect of the poorhouse, but by her means is disseminated the knowledge of this facile admission into the Rotundo, and so that hospital, holds out, as it were, a premium or incentive to immorality.

On the whole, then, I do not think that my idea concerning the meaning Mr. Phelan intended to convey, by the detail of his view of the question "in a moral sense," is unreasonable;

and it is my opinion, as well as that of my "seven associates," that he intended to spread this impression throughout the country.

And now, may I ask, why did this gentleman, in discussing the "moral" aspect of his subject, allude *only* to the Rotundo for the length of *nearly three pages?* Does the other lying-in hospital decline admission to the immoral class? Are the wretched "abandoned" who apply at its door for shelter and aid during "nature's hour of trial," cast off, because they cannot prove themselves *moral* women? Surely not.

If such are not refused admission there, *why then was one hospital held up to public odium in this respect, to the exclusion of the other?*

Towards the conclusion of Mr. Phelan's letter, he thus expresses himself—"If Dr. Sinclair and his seven associates consider this question practically and cooly, they will be attended to, and will do much good; but they cannot prevent the subject from being discussed," &c. With regard to this observation, I beg leave to state on my own behalf, that had I the power to prevent discussion on this important topic, I should refrain from exercising it. In my pamphlet, which was refused admission into the *Dublin Quarterly Journal, I took up no particular side or principle.* I merely exposed what I considered to be shallow and unsound reasoning; too evident bias; and the unfair use of statistics and quotations to support that bias. In fact, as I say at the termination of my pamphlet, "It has not been my object in this paper to *enter minutely into the question at issue, but merely to protest against the manner in which Mr. Phelan has brought the matter forward, especially in connection with the Rotundo Hospital.*" I have merely, in that pamphlet, put the subject *in a proper train for discussion, and I shall be ever ready to argue it, with any one, both coolly and impartially.* I shall, however, expose, to the best of my power, *such unfair and partial writers as Mr. Phelan.*

In conclusion, sir, I cannot avoid quoting a passage contained in a letter I have just received from a most eminent physician, with reference to Mr. Phelan's paper:—"Rash and inconsiderate talking, by members of the profession *who have the public ear*, is one of the *poisons* of the times."—I remain, sir, your obedient servant,

E. B. SINCLAIR.

28, North Frederick-street, Dublin,
January 24, 1868.

[As our readers are now in full possession of information to enable them to arrive at a decision, and having accorded ample space to the communication of all parties, we must here bring the correspondence to a close.—ED. M. P. & C.]

Medical News.

UNIVERSITY OF CAMBRIDGE.—The Linacre Professor of Anatomy and Physiology (Dr. Rollerton) having been prevented from entering upon his courses of instruction on the day mentioned in the notice already issued, commenced the course on Thursday last, February 6, at 1 P.M., which will be continued on Mondays and Thursdays, at the same hour. The practical classes will be carried on with the lectures in connection with them, as in former terms.

APOTHECARIES' HALL.—Dr. Charles Taylor, M.D., St. Andrews, has been elected a member of the Court of Examiners of the Society of Apothecaries; and Dr. Robert Norton, M.D., King's College, Aberdeen, M.R.C.P. London, has been elected chairman of the Court of Examiners, in the vacancies caused by the death of Dr. William George Thisselton Dyer, St. Andrews, L.R.C.P.Edinburgh.

List of Entries in the Register of the Branch Medical Council (Ireland), for the month of January, 1868:—

William Todd Burr, 79, Lower Mount-street, Dublin, M.B., 1867, and Mastr.-Surg., 1867, Univ., Dublin; Nicholas Flanagan, Cellbridge, co. Kildare, Lic. Apoth. Hall, Dublin, 1823; Hugh Brady White, Kilmoylan, Pallas-green, co. Limerick, Lic. R. Coll. Surg., Irel., 1867, Lic., 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel.; William Henry Dodd, Killorglin, co. Kerry, Lic. R. Coll. Surg. Irel., 1867, Lic., 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel.; Thomas Faris, 15, Upper Gloucester-street, Dublin, M.B. Univ. Dub., 1867, Lic. R. Coll. Surg. Irel., 1867; Joseph Johnstone Monteath, 1, Clyd-terrace, Belfast, M.D. Q. Univ. Irel., 1867, Lic. R. Coll. Surg. Edin., 1867; Patrick Richard Martin, Clogheen, co. Tipperary, M.D., 1867, and Mast.-Surg., 1867, Qu. Univ. Irel.; James Henry Reynolds, 44, Lower Gardiner-street, Dublin, M.B., 1867, and Mast.-Surg., 1867, Univ., Dublin; James Philpot Webb, 7, Pembroke-street, Cork, Lic. Apoth. Hall, Dublin, 1867, Lic. R. Coll. Phys. Edin., 1867; John Walker, Portstewart, co. Londonderry, M.B., 1867, and Mastr.-Surg., 1867, Univ., Dublin; George M'Bride Davis, Newry, co. Down, M.D., 1866, and Mastr.-Surg., 1866, Q. Univ. Irel., Lic. Apoth. Hall, Dublin, 1866; Duke Parke, Cashell House, Derrygonnelly, co. Fermanagh, Lic. R. Coll. Surg. Irel., 1866, Lic. R. Coll. Phys. Edin., 1866; John Francis Fitzpatrick, Mallow, co. Cork, M.D., 1867, and Mastr.-Surg., 1867, Qu. Univ., Irel., Lic. Midwifery, K. Q. C. P. I., 1867, Albert Halahan L'Estrange, 4, Belgrave-road, Rathmines, co. Dublin. Lic. R. C. Surg. Irel., 1867, Lic. 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel.; Francis Adolphus L'Estrange, 4, Belgrave-road, Rathmines, co. Dublin, Lic. R. C. Surg. Irel. 1867, Lic. 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel.; Peter Thomas Frazer, Donaghmore, Queen's County, Lic. 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel., Lic. R. Coll. Surg. Irel. 1867; Maurice Knox, 4, Shangana Terrace, Ballybrack, co. Dublin, Lic. R. Coll. Surg. Irel., 1866, Lic. 1868, and Lic. Midwifery, 1868, K. Q. Coll. Phys. Irel.; Daniel Thornton, 27, Hardwicke-street, Dublin, Lic. 1867, and Lic. Midwifery, 1868, K. Q. Coll. Phys. Irel.; Thomas Edward Carroll, Knockbridge, co. Louth, Lic. 1867, and Lic. Midwifery, 1867, K. Q. Coll. Phys. Irel., Lic. R. Coll. Surg. Irel., 1867; George Edward Dobson, Edgeworthstown, co. Longford, M.B., 1867, and Mastr.-Surg. 1867, Univ. Dublin; Albert Kirwan, 44, Mountjoy-square, Dublin, Lic. R. Coll. Surg. Irel., 1867, Lic. 1868, and Lic. Midwifery, 1868, K. Q. Coll. Phys. Irel.; Frederick Robert Patterson, 14, Landstown-road, co. Dublin, Lic. 1868, and Lic. Midwifery, 1868, K. Q. Coll. Phys. Irel., Lic. R. Coll. Surg. Irel., 1867; Olwar Stokes Eagar, The Terrace, Tralee, co. Kerry, Lic. R. Coll. Surg. Irel., 1867, Lic. 1868, and Lic. Midwifery, 1868, K. Q. Coll. Phys. Irel.; William Charles Gasteen, Clonard, co. Meath, M.B. Univ. Dubl., 1866, Memb. R. Coll. Surg. Engl. 1867; Michael Kennelly, 68, Grafton-street, Dublin, Lic. R. Phys. Edin. 1867, Lic. R. Coll. Surg. Edin. 1867, Lic. Apoth. Hall, Dubl. 1865.

CHARLES FREDERICK MOORE, M.D., F.R.C.S.I., has been appointed Medical Inspector of Seamen for the Port and District of Dublin.

HEALTH OF ENGLAND.—The mortality of 1867 was below the average in almost every part of the kingdom. The south-eastern division, as usual, stands first, with a mortality of only 18·90 per thousand for this whole section of the country, taking both bad and good. The south-western, also, as usual, is next, having a mortality of 19·13 per thousand; and then the eastern, 19·33. The several midland divisions follow—the north midland, 20·31; the south midland, 20·32; the west midland, 20·70; and Monmouthshire and Wales, 20·68. The place of London is next, the mortality of 1867 being as low as 22·98; Yorkshire, which has been commonly above London, is on this occasion below it, having a mortality of 23·64 per thousand. The northern division makes an extraordinarily bad return of 24·73 per thousand; but now, as ever, the north-western division (Lancashire and Cheshire) is lowest of all, having to return a mortality of 25·89 per thousand—a return which is a bad one even for this district.

SEAMEN'S HOSPITAL SOCIETY.—The forty-seventh annual meeting was held last Wednesday. The report reviewed the circumstances that led to the introduction of the Merchant Shipping Act of last year, the growing feeling that still exists against the continuance of a floating hospital, and the circumstances by which the locality of their future establishment was still undecided. The financial affairs of the society during the year have been unsatisfactory, "and the Committee are anxious to call attention to the serious fact that, while the annual expenditure has amounted to £8121, the entire receipts of the year have been but £7242, although this includes the sum of £824, the amount received from legacies, which the society was accustomed to invest for its permanent advantage." During the past year 1969 patients have been admitted into the *Dreadnought*; that 1050 have been treated as out-patients, and 156 wholly or partially clothed before their discharge. There were many cases of scurvy, but it is anticipated that this disease will be greatly mitigated by the operation of the Act, which took effect from the 1st of January in the current year, and is now in full working order. The report thus appeals for monetary aid:—"Dependent as we are upon our commerce for the elements of national industry, for a great part of our subsistence, and for the markets for which the products of our manufacturers are destined, it would be needless to show that the strength and prosperity of the country greatly depend upon our seafaring population. A society, therefore, which restores to the service of the merchant marine several thousands of seamen annually must be one deserving of efficient maintenance."

NOTICES TO CORRESPONDENTS.

The following Communications are in type, and will appear in our next:—Phthisis Pulmonalis, by E. J. Kinkead; Incubation of Syphilis, by C. R. Drysdale, M.D.

Letters by—M. Liptrate, R. Griffith, "A Country Doctor," and "One who has Cause to Complain."

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 19, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S SECOND LECTURE ON FOOD.

COMPARATIVE DIGESTIBILITY OF FOODS—FUNCTIONS OF DIFFERENT FOODS.

THE phenomena of digestion are altogether of a physical and chemical nature; there is nothing whatever of a vital quality about them; for the comminuted food is brought successively under the influence of special solvents furnished by the saliva, the gastric juice, the pancreatic fluid, the biliary secretion, and the intestinal mucus; all of which are associated with a large volume of water. Digestion, indeed, as Berzelius remarked, is a true process of rinsing—the amount of fluid secreted into the alimentary canal, and again absorbed from it, being, according to the researches of Bernard, Bidder, and Schmidt, not less than three gallons in the twenty-four hours. The following, in fact, are the daily proportions of the several secretions and their solid constituents:—

	Lbs.	Grs. of solid matter.	Grs. of active principles.
Saliva ...	3·54	... 231	... 37 of Ptyalin.
Gastric juice ...	14·11	... 2960	... 316 of Pepsin.
Pancreatic fluid	8·82	... 6172	... 773 of Pancreatin.
Bile ...	3·54	... 1233	... 1073 of Organic Ferment.
Intestinal mucus	0·47	... 46	... 28 of do.
Total ...	30·48	... 10642	... 2227 of Special Solvents.

All of which, by their special solutive actions on the several constituents of food, rob it of its nutritive quality, and carry it into the circulation.

Each of the fluids, so largely secreted into the alimentary canal, has its special functions.

The *Saliva*, which is a secretion from many glands opening into the mouth, is a thin glairy liquid, of slight alkaline reaction, except while fasting; and containing about 1 per cent. of solid matter—half of which is a peculiar organic body, called *ptyalin*, and the rest is composed of chloride and phosphate of sodium, with a little carbonate and sulphocyanide. Ptyalin is a nitrogenous substance, of the nature of diastase—the ferment, which in the vegetable converts starch into sugar, and hence it has been called *animal diastase* by Mialhe, who attaches great importance to it as the principal agent concerned in the digestion of starchy foods—one part of ptyalin, according to him, being capable of converting 8000 parts of insoluble starch into soluble glucose. Saliva has no chemical action on fat, or fibrin, or albuminous bodies—its real functions being to lubricate the food for deglutition, to carry oxygen into the stomach, and to furnish a solvent for starch and tender cellulose. Those animals which feed chiefly on woody matters, as the beaver, have large salivary glands, and provision is made for a prolonged contact of the secretion with the vegetable tissue.

An artificial saliva may be obtained from seeds which have fermented, and in which the diastase is abundant. *Liebig's Extract of Malt* is an example of this; and Mr. Morson has taken advantage of the discovery of M. Mège Mouries, that the inner layer of bran contains a nitrogenous digestive principle called *cerealin*, of the nature of diastase, and has extracted it, and consolidated it with sugar, in a preparation which he has named *saccharated wheat phosphates*. Both of these are aids to the digestion of farinaceous matters.

Gastric juice is a secretion from the entire surface of the stomach. It is a transparent liquid, of a pale yellow colour, and of a saline and acid taste. It is much heavier than water (sp. gr. about 1020), and it contains from 2 to 3 per cent. of solid matter—about 1·7 of which is a remarkable nitrogenous organic body, called by Schwann, its discoverer, *pepsin*. Its peculiarity is, that in the presence of an acid, it converts almost every description of albuminous and fibrinous matter into a soluble form of albumen, called by Lehmann *peptone*, and by Mialhe *albuminose*. It differs from common albumen in many particulars—it is, for example, more liquid; it is not coagulated by heat, nor by weak spirit, nor by acids, nor by most mineral salts; it is not very prone to decomposition; and it is capable of *dialysis*, that is, of transudation through animal membrane, and, therefore, of absorption, which albumen is not. The digestive power of it is very great, for Wasmann found that an acid liquid containing only one part of it in 60,000 of the solution—that is about one grain in a gallon, was capable of dissolving meat; and Lehmann ascertained that 100 parts of the gastric juice of a dog would digest 5 parts of coagulated albumen.

The nature of the free acid in gastric juice is somewhat doubtful; Lehmann, who has frequently examined it, says it is lactic acid, but Schwann asserts that he has often found free hydrochloric acid. It may be that the chlorides contained in the stomach are partially decomposed by lactic acid, especially during the process of analysis, and thus the hydrochloric acid may be accounted for. When the acid is in too large excess, the digestive action is abnormal, and so also when it is deficient; Lehmann states that the best proportion is when 100 parts of the gastric juice is just neutralized with 1·27 of potash.

Considering the importance of pepsin as a digestive agent, the preparation of it has become a common affair of trade. In France it is obtained from the stomach of the pig by carefully washing it, then scraping off the soft mucus membrane, rubbing it down with a little water, filtering, precipitating the foreign matters with acetate of lead, again filtering, and then precipitating the excess of lead with sulphuretted hydrogen, after which it is allowed to stand, or it is warmed, to get rid of excess of sulphuretted hydrogen; it is then filtered once more, and after carefully evaporating to the consistence of syrup it is consolidated with dry starch. In this country it is prepared from the stomach of the sheep as well as of the pig, and we have our *pepsina ovis*, and *pepsina porci*; besides which, the use of lead and sulphuretted hydrogen are avoided, by precipitating the foreign matter with alcohol, pepsin being soluble in weak spirit. On the lecture-table are specimens of Boudault's pepsin, as well as those of Mr. Morson, of London, Messrs. Turner and Co., and Mr. Claridge, of Warwick, all of which are also in operation, showing their relative digestive powers on animal fibrin.

The pepsin preparations on the table contain varying proportions of starch, as from 20 to 50 per cent.; but the digestive power of any specimen may be easily tested by putting a dose of the preparation into a small bottle with half an ounce of water, acidulating with 20 drops of hydrochloric acid, and then adding half a drachm of hard boiled egg chopped small, or the same weight of lean meat, or 120 grains of the fibrin of blood. On standing in a warm place at a temperature of from 100 to 110, the digestion should be complete in two hours. Tried in this manner, Dr. Pavy found, some time ago, that nearly all the preparations in common use were inert; not so, however, at the present time, for, as you will notice, digestion is proceeding rapidly.

I am told that the strongest pepsin is obtained from young healthy pigs which are kept hungry, and are then excited by savory food which they are not allowed to eat; while the influence of it is strong upon them, and the secretions are pouring out in expectation of the meal, the animals are pithed.

Pepsin, like diastase, is rendered inert by a temperature of from 120 to 130° Fah.; and, therefore, very hot drinks after a meal are hurtful.

Pancreatic fluid is a secretion from the pancreas or sweet-bread. Until recently its true digestive functions were not well determined. It is a colourless fluid of a gravity of 1008 or 1009. Like the saliva, it is generally a little alkaline, and it contains about 1·3 per cent. of solid matter, one-eighth of which is a nitrogenous organic substance of the nature of ptyalin or diastase, and is called *pancreatin*.

More than twenty years ago, Bernard proved, what Valentin had long before suspected, that the pancreatic fluid was concerned in the digestion of fatty matters; but he fell into error in supposing that its action was to saponify the fat, and to set free glycerin. Here is a specimen of glycerin and of lead-soap, obtained from fat upon which the pancreatic fluid had previously acted, showing that saponification had not been effected. The true action of the pancreatic secretion is evidently to break up the large granules, and crystals, and globules of oil and fat, into myriads of minute particles of from 1-3000th to 1-15000th of an inch in diameter. In this way the fat is emulsified, and converted into a milky liquid, which mixes freely with water, and passes through the tissues of the intestines into the lacteals. We are indebted for this knowledge to Mr. Julius Schweitzer, of Brighton, who, while managing the laboratory of Messrs. Savory and Moore, made a large series of investigations into the properties of the pancreatic fluid, at the instance of Dr. Dobell, who had long been of opinion that its functions were important in certain diseases, and required elucidation. When the fresh pancreas (and best of the pig) is rubbed down in a mortar with twice its weight of hogs lard, it rapidly emulsifies it; and on adding about four or five times the bulk of water, and straining through muslin, there is obtained a thick milky liquid of the consistence of cream, which gradually consolidates. If this be treated with ether the pancreatised fat dissolves; and when the ether is separated by distillation, there remains the purified pancreatised fat, which is still miscible with water; in fact, when mixed with four or five parts of water it forms the creamy emulsion which is used dietetically and medicinally in doses of a teaspoonful at a time.

The properties of the pancreatic fluid have been well described by Dr. Dobell in a paper recently read before the Royal Society of London; and it would seem that the fluid has not only the remarkable property of emulsifying oil and fat, and so rendering them capable of absorption, but it has also the power of dissolving starch by converting it into glucose. In this respect its action is like that of saliva, but it is much more energetic; for in its fresh state, one part of the pancreas will dissolve eight parts of starch, and even after it has emulsified fat it will dissolve two parts of starch. It is, therefore, a powerful agent of digestion, in so far as fat, and starch, and young cellulose are concerned, but it has little or no action on albuminous substances.

I am indebted to Dr. Dobell and to Mr. Morson for the specimens of *pancreatin* and *pancreatized fat* upon the table. The first of these preparations is obtained by treating the fresh pancreas with water, and carefully evaporating the solution to the consistence of syrup, and then consolidating it with the flour of malt. Perhaps the dried pancreas, powdered and mixed with malt, would be a stronger preparation.

The *Bile* is a complex liquid, consisting of biliary acids (*taurocholic glycocolic*, &c.) in combination with soda. Its reaction is slightly alkaline, and it contains about 14 per cent. of solid matter, not less than 12 of which are organic.

The true function of the bile is unknown; perhaps it aids in neutralizing the acid peptones from the stomach; perhaps, also, in emulsifying fat; and it may be that it helps the digestion of starchy foods. Lehmann thinks it is a rich residuum from the manufacture of blood globules in the liver, and that it is secreted into the alimentary canal, only to be reabsorbed into the blood. Mr. Lee, also, is of opinion, from his examination of the fœtal liver, that it separates a highly nutritious substance from the portal blood, which is elaborated in the intestines. Its functions are evidently obscure.

Lastly, the *intestinal secretion* which is thrown out along the whole course of the small intestines, is, according to the researches of Bidder and Schmidt, a powerful agent of digestion; for it combines the activity and digestive power of all the other secretions—starch, fat, and albuminous substances being all equally well digested by it.

The food, therefore, coming into contact with these special solvents, and being copiously drenched with fluid, gives up its nutritive constituents. Admirable, however, as this provision is for the digestion of food, a considerable portion of useful matter passes through the bowel unchanged; for cellulose, starch globules, and muscular fibre are common constituents of sewage. Dr. Lyon Playfair says that in the case of an adult man, with good digestion, 1-12th of the nitrogen of the food passes away with the fæces, and others have computed it at an eighth. In a dry state the fæces of man contain about 6·5 per cent. of nitrogen, and in the fresh state 1·7. In Ranke's experiments, it was ascertained that the nitrogen in the fæces was to that in the urine as 1 to 12·5. Much of this is,

doubtless, derived from the secretions which have done the work of digestion and have thus become effete ; indeed, Dr. Marcet is of opinion that the alvine discharges are chiefly composed of the residuum of albuminous substances which have been secreted into the bowel for the purposes of digestion. In ordinary individuals they amount to from 4 oz. to 5·5 oz. a-day—(Wehsurg says 4·6 oz.; Liebig, 5·5 oz.; Lawes, 4·2 for a middle-aged adult, and 6·2 for a person over 50—the mean amount for adult males being 4·2 oz., and for adult females 1·3 oz.) ; and when calculated in a dry state they amount to about 1·1 oz. daily. It would seem, however, that when indigestible and irritating food is used, the quantity of fæcal matter is increased, as if the food was hurried through the intestines without undergoing digestion. At the Wakefield Prison, for example, it was found that when brown bread, containing bran, was given to the prisoners, the weight of the fæces was 7 oz. per head daily ; and the same fact has been observed at the Coldbathfields Prison.

With this general account of the digestive function of the different secretions discharged into the alimentary canal we are prepared to inquire into the digestibility of different alimentary substances.

(To be continued.)

LECTURES ON VENEREAL DISEASES

DELIVERED IN

DR. STEEVENS' HOSPITAL.

LECTURE II.

By ROBERT McDONNELL, M.D., F.R.S.,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

GENTLEMEN,—In my last lecture I discussed some topics relating to venereal disease in general, and while attempting to give you a fair and impartial statement of the evidence upon these subjects, I allowed you to see the conclusions towards which I myself conceive that this evidence tends. These conclusions were—

First, that gonorrhœa, the simple venereal sore, and the syphilitic sore, are diseases arising from three distinct poisons.

Secondly, that true syphilis, when propagated by contagion (that is not hereditary), begins its inroad on the day of infection, creeps on in ambush for a fortnight or three weeks of incubation, then declares itself as a dry papule, a chancrous excoriation, or a hard chancre. From this time the disease is no longer capable of being cut short, nor is it capable of being inoculated upon another part of the individual who has it. In other words, it is not abortible, neither is it auto-inoculable. Constitutional syphilis must follow. We have, in fact, to deal with a morbid principle in the system. How are we to deal with it ?

I must now ask you to turn aside with me for a time to look at some general facts with regard to morbid principles, and to consider the tendency which some of them have to take up a permanent residence in the frame, and the tendency of others to make a raid, and after a time disappear.

I would ask you, on the threshold of this part of our inquiry, what do you mean by a diathesis? In truth, it is a singularly indefinite term, indicating a peculiar morbid tendency in an individual. It is not a disease, but a proclivity to disease of a particular kind. It is something which is handed down from parent to offspring for generations. Thus we speak of the scrofulous diathesis, gouty diathesis, and so forth. It is merely another word for disposition, and affords little or no clue to the thing spoken of. Yet, this vague and unscientific term diathesis implies the existence of a morbid principle in the animal economy. A man having met with a compound fracture of the leg is admitted into this hospital from the adjoining brewery. He has been in the habit, for many years, of partaking largely, indeed, excessively, of porter. From his appearance and his history, we know that the accident which has befallen him is likely to give rise to bad results. In fact, we say that his blood is in a bad condition. He is more liable than other persons suffering from a like accident to be attacked by erysipelas, gangrene, or pyæmia. We call such a condition an inflammatory diathesis. We recognise in this individual a morbid principle, residing in his frame and apt to be called into action by the accident which has befallen him. All this is very different from what we observe in cases where a morbid principle or poison is received into the system by infection or inoculation, producing what we call toxæmia, or a true intoxication—a condition in which a struggle ensues between the disease and the constitution of the patient, and nature either succeeds in expelling the poison or dies in the attempt. An individual gets smallpox, measles, or typhus fever. At the moment when the disease declares itself, a commotion takes place in the system. As soon as the constitution recovers from its surprise, the struggle begins, and nature tries to drive out the intruder. Although in one sense all toxæmic maladies are true diseases, yet in another point of view they are processes of health. They are efforts of nature to restore health, and are no more diseases than parturition is a disease. The skilful midwifery practitioner takes his stand at the bedside of a patient in labour, to conduct a process of health often fraught with danger to a happy issue. His skill and experience have taught him to repose confidence in nature's efforts. He does not think of giving ergot in every case, or of having recourse to the forceps or the cephalotribe. In like manner the judicious medical practitioner takes his stand beside the small-pox patient to aid nature in the accomplishment of a certain definite object. The time has gone past for speaking of specific remedies for morbid poisons, such as produce small-pox, measles, or typhus. We no longer believe that there are remedies at present known, which can neutralize these poisons as an acid does an alkali, and which can cut these diseases short. But close observation and experience have taught the medical mariner where the shoals and rocks lie hid. He has learned the days of greatest danger, the accidental conplications, the signs of debility, and he strives, by aiding nature at those periods, to bring his patient safely through the struggle.

Now, gentlemen, the question is, does the syphilitic poison give rise to a diathesis, or is it a true intoxication. Ricord says, "that the induration of chancre is the first symptom of a diathesis," and Diday says, "it is an intoxication, not a diathesis." I conceive that it is a matter of the greatest consequence, yet a matter of the greatest difficulty, to decide between these opposite opinions. Does the poison of syphilis give rise to a diathesis analogous to that of gout, scrofula, rheumatism, &c. ; or is it a toxæmic disease—a true intoxication, a disease like small-pox, tending to spontaneous cure, if nature be strong enough to expel the poison—if the human frame, like the womb of the parent, is able to expel the putrid fœtus. If the first proposition be true, there can be no inherent tendency to self-cure, for a morbid principle has entered the organism there to reside, and this principle engendering a proclivity to disease of a particular kind, will be ever and always ready to be roused into activity. True it may lie dormant for years. It may remain in a state of quiescence while the general health is good, but if debilitating influences, such as insufficient food or clothing, bad air, hardship or debauchery, come to lower the bodily strength, the morbid principle of syphilis may forthwith declare itself. We can never speak of recovery from a scrofulous diathesis. We can never speak of curing a gouty disposition. We can only hope that by following certain well-known rules of conduct, we may diminish the risks to which such subjects are liable. If there is evidence that the morbid principle of syphilis engenders a diathesis, it then must fall within the same category. Just as good air, good food, cod-liver oil, iron may be of use in keeping the scrofulous tendency in check, so certain remedies can exercise a great control over syphilis, may muzzle it; but on the theory of a diathesis, neither the one nor the other can be cured.

Now, if, on the other hand, we have in communicated syphilis a true toxæmia, we have to do with a malady which is spontaneously curable ; that is to say, with one in which nature is able, under favourable circumstances, to grapple with the morbid principle, to seize the intruder by the throat, and after a longer or a shorter struggle to kick him out. If then syphilis belongs to the latter category, we may reasonably hope for a complete recovery. We may speak of cure as we speak of it in any disease of the same class ; that is, we may expect that by aiding nature in the contest we may eventually bring about complete restoration to health.

I have already said that the term diathesis is very vague. Perhaps some may say I am wrong in speaking of it as an incurable condition; but I am sure that, as the word is generally understood, I am right. You will, however, easily see the reason why some eminent authorities have been led to adopt, in the case of syphilis, the theory of a diathesis, while others equally eminent regard it as an intoxication. The long and tedious course which the complaint runs, the disposition which it has to combine with certain known cachexias, the manner in which, after it has apparently gone off, it turns like the retreating Parthian, to take another shot ; above all, its hereditary disposition have caused it not unnaturally to be looked upon as something very different from a morbid poison capable in due course of being eliminated. This view of the subject has been strengthened, no doubt, by the fact that the cachexias arising from debauched habits of life among the wealthy, misery among the poor, and from prolonged and severe specific treatment for the disease itself (cachexias too frequently accompanying syphilis, although essentially distinct from it), have served to mask the true nature of the complaint, and caused the condition resulting from the whole to be regarded as a diathesis.

That syphilis is a toxæmia, a true intoxication, I cannot doubt. Diday's argument on this question appears to me unanswerable, but facts are beyond reasoning on such a subject. When I see a patient with a hard chancre, accompanied by hard glands in the groin, followed by the usual syphilitic sore throat, pains in the bones, affections in the cervical lymphatic glands, several successive crops of syphilitic eruption on the skin; and when I see this patient getting well and years after married, his wife in good health, in good health himself, and the father of healthy children, "Dont" (to use the modest expression of Gil Blas) "it croit pieusement etre le pere." When I know that from the first to the last he has not taken one grain of mercury; that he has been treated on the simplest principles of hygiene, how can I refuse to believe that there has been a poison which has been eliminated, and that health has been as perfectly re-established as after recovery from small-pox or from typhus. This is a subject upon which I do not myself entertain the slightest doubt. I cannot expect, I do not ask you, gentlemen, to adopt my convictions. It is not from the hearing of cases, or from reading, that you can come to be thoroughly convinced upon this important point. You must get your convictions where I got mine, not from the teaching of any man, but from the observation of cases about which I could not be deceived. Let me earnestly beg of you from this time, early in your career, to watch and note those cases which you may reasonably hope to follow for years. If you do so, I venture to predict, with the greatest possible confidence, that the time will come when you will hold as strong convictions as I do this moment regarding the curability of syphilis without the use of specifics.

You must not, however, suppose that because I regard syphilis as essentially a toxæmic disease, I therefore altogether deny the existence of a peculiar cachexia in syphilitic patients. Nature has indeed a long and hard battle to fight in eliminating this poison, and the victory is often won by a constitution which has been so thoroughly exhausted in the contest that it is never good for much after. If in addition to the exhaustion resulting from a fair fight in a constitution not naturally vigorous, we remember that there is not unfrequently a bad condition of health resulting from the debauched habits of life of the wealthy profligate, or the miseries and hardships of the poor, and if with this we connect the evil influences of treatment, which assuredly tends rather to weaken than to strengthen, we can easily account for a cachexia or diathesis being at length formed. What I wish you to understand, what I most desire to put before you in a clear light, is that the intoxication of syphilis and the cachexia which follows, are essentially distinct—that while syphilis itself is a true toxæmic disease, capable therefore of spontaneous cure, it is too often followed by a cachexia, in producing which, debility, debauchery, poverty, and misery have had, perhaps, each a share.

According to Ricord, the drama of syphilis is divided into three acts or parts :—

1st. The primitive accident or chancre, which is the immediate result of contagion.

2nd. The secondary accidents or constitutional poisoning resulting from this infection.

3rd. The tertiary accidents, rarely showing themselves before the end of the sixth month.

To these Bazin has added a fourth, which comprises the visceral lesions, and which he designates under the name of the quaternary period. I would observe, in passing, that it is much to be regretted that such terms as primary, secondary, tertiary, &c., cannot be expunged from among the technicalities of syphilis. They imply that the syphilitic drama consists of so many distinct acts. They give the idea that the curtain must rise and fall so many times before the play is over: in short, that the performance is still unfinished unless tertiary and quaternary symptoms present themselves. All this tends to perpetuate as far as nomenclature can, the old notion that syphilis of itself always gets worse, and never gets better spontaneously.

(To be continued.)

Original Communications.

ON AN IMPROVED SPLINT FOR THE TREATMENT OF FRACTURES OF THE THIGH, AND FOR AFFECTIONS OF THE KNEE AND HIP-JOINT.

By Mr. MORGAN, F.R.C.S.I.,

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NOTWITHSTANDING the many methods adopted for the treatment of fractures of the thigh bone, and the arguments adduced in favour of each, all of them meritorious, and evidencing an ever active anxiety on the part of practical surgeons to attain the utmost perfection of mechanical and scientific aid in the treatment of these very important accidents, I believe there are yet some improvements capable of being made, which overcome objections that may apply in a greater or less degree to the various apparatus in use, and which I hope to have obviated in the adaptation I have arranged and found practically most satisfactory.

The question of the extended position being the most applicable to fractures of the thigh, has been so vigorously debated, and so great a mass of evidence brought forward in its favour, that it may be considered as decided—having gone through various vicissitudes of opinion, as thus epitomized in the most recent work on the subject.

There have been three grand epochs in the history of treatment of fractures of the thigh :—

1st. That in which the straight position was universally adopted, and which reaches from the earliest periods to the period of the writings of Pott.

2nd. The epoch of the flexed position which, inaugurated by Pott, had already begun to decline at the beginning of the present century, and which may be said to have been

AN IMPROVED SPLINT FOR THE TREATMENT OF FRACTURES OF THE THIGH AND AFFECTIONS OF THE KNEE AND HIP JOINTS.

Fig. 1.

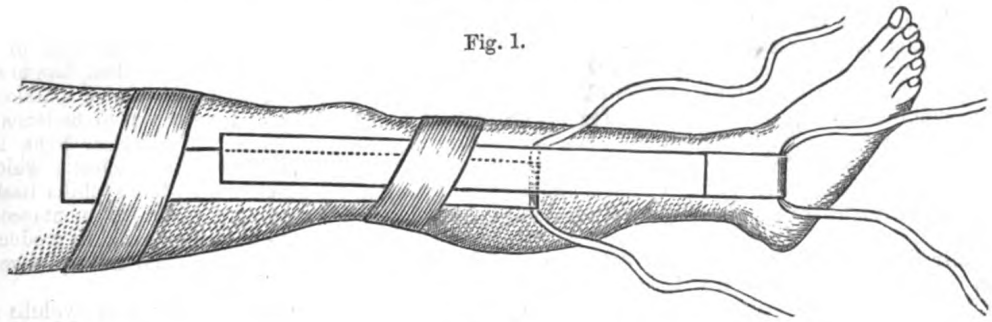


Fig. 2.

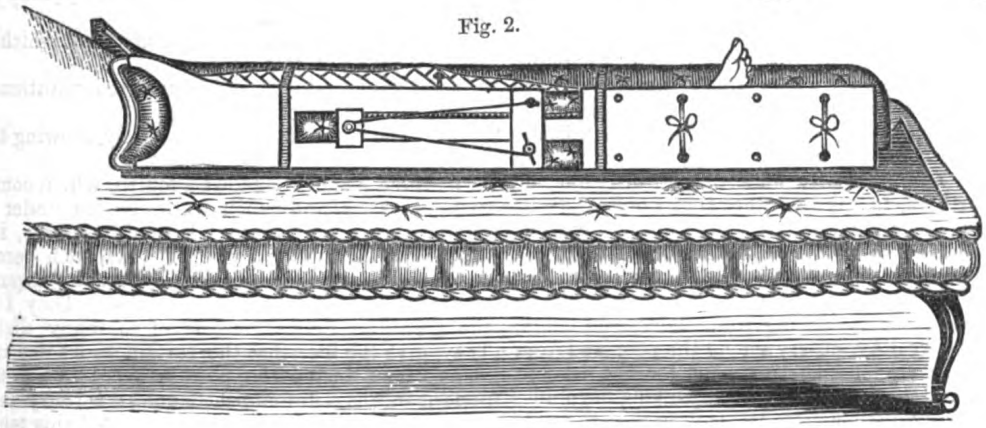


Fig. 3.

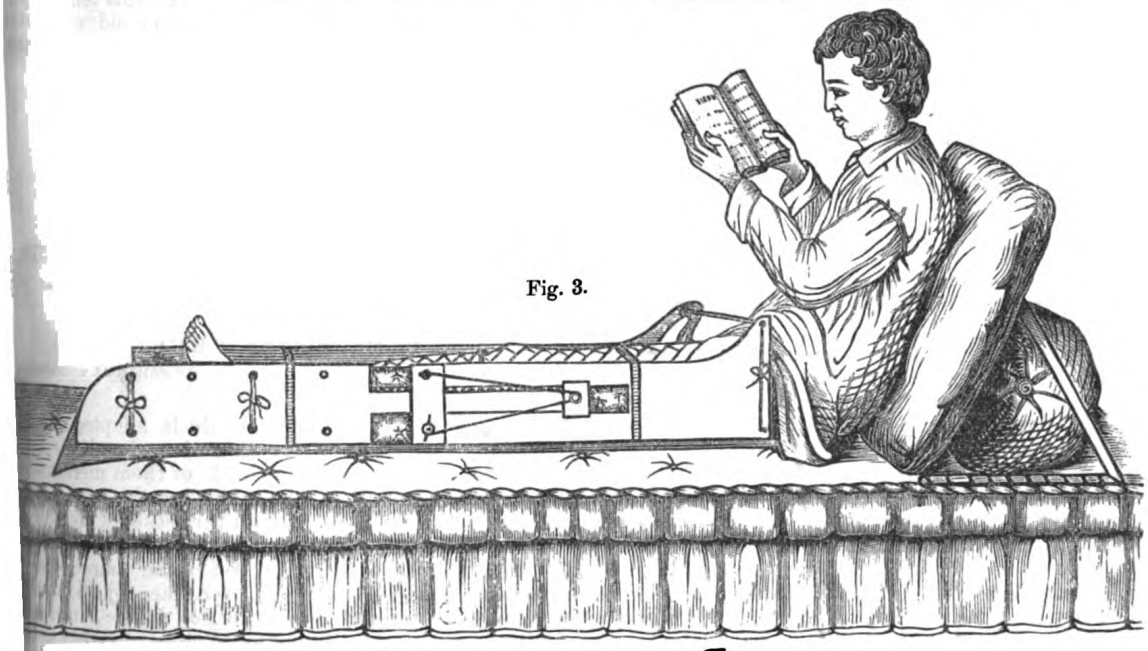
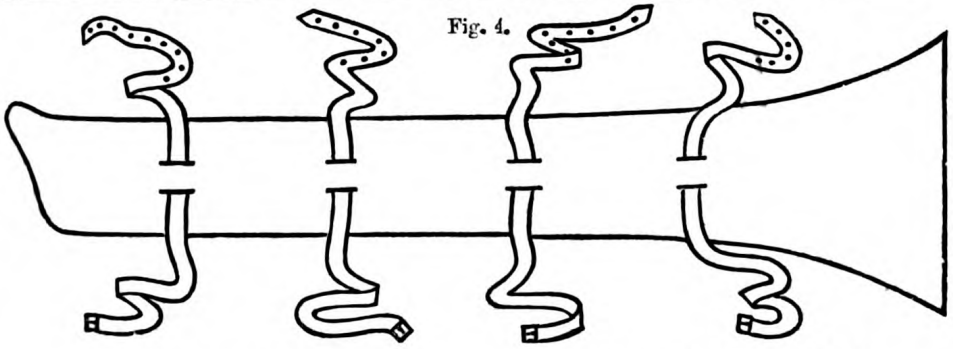


Fig. 4.



completed within less than 100 years from the date of its first announcement.

3rd. The epoch of *renaissance*, or that in which surgeons, by the vote of an overwhelming majority, have declared again in favour of the straight position—*this is the epoch of our own day.*[1]

The great practical object sought to be obtained has been the most efficient and endurable method of attaining the permanent co-aptation, and keeping in proper position of the fractured extremities, which, specially where they are so frequently oblique, it is of the utmost necessity to have accurately in contact, and subject, during treatment, to a continued and never-yielding extending and counter-extending force, and which, if even momentarily relaxed, would allow the work of reparation to be disturbed, or altogether lost. The difficulties of attaining a thoroughly applicable and satisfactory means of accomplishing this, have been so great that, from time to time, we find surgeons of high repute, expressing their dissatisfaction with the then known means of carrying out the details of treatment.

Chelius, in 1847, remarks :—"The broken ends are retained in their place with great difficulty, and the cure takes place most commonly with deformity, and shortening of the limb, specially in oblique fractures."[2]

Maclise, in his "Surgical Anatomy," remarks :—"Out of every six fractures of either clavicle or thigh bone, I believe that, as the result of our treatment by the present forms of mechanical contrivances, there would not be found three cases of co-aptation of the broken ends of the bone, so complete as to do credit to the surgeon."

J. Bell declared, "the machine is not yet invented by which a fractured thigh-bone can be perfectly secured."

Nélaton mentions the "shortening of the limb, which it is almost impossible wholly to prevent."

No less eminent a surgeon than Dr. Mott is thus reported to have given evidence in a court of law :—"More or less shortening of the limb is uniformly the result after fractured thigh, even in the most favourable circumstances."

It is, therefore, not surprising that so much attention has been directed to attain a perfect method of treatment.

That I now propose will, I think, accomplish it with much comfort to the patient, and satisfaction to the surgeons. I propose to do away with the chance of compression on the foot, heel, or ankle, so often complained of by the patient, specially rendering young subjects irritable and distressed, causing chafing of the skin, puffing of the integuments, and involving the necessity of keeping the foot bandaged, and more or less immoveable and compressed during the entire treatment, whether in the ordinary Liston's splint, or its admirable modification by Butcher, or in splints where a boot is used with a screw as the extending force ; and particularly in such cases, though rare, where injury or previous disease would not allow of the application of a bandage as a means of fixation or extension, as in the case referred to by Hamilton, where, from the inability to use the bandage, owing to an ulceration of the heel, the fracture was *allowed* to unite with two and a half inches of shortening. The means of extension I use is by the medium of good adhesive plaster straps on each side of the limb, beginning below the site of the fracture. Various have been the claimants for priority in the using of this simple and very efficient means of giving a *diffused* traction over the limb. I have found it most satisfactory, and capable of exerting an amount of power which, without trial and practical experience, might appear incredible. I am borne out, I am sure, in this statement by all who have tested the method, and by the following extract :—"The adhesive plaster bands are beyond all comparison the best means of making permanent extension, which are at present known to the surgeon."[3] My colleague, Mr. O'Grady, having seen the method largely used in the United States hospitals, has adopted it in the treatment of many cases of fracture and found it always most satisfactory and successful. By this means there is no difficulty in obtaining a powerful purchase on the limb, without danger of irritation, swelling, or causing pain by constriction. One, two, or three straps may be applied with a special extending force from each, but two broad straps, about three and a half inches wide, of well made adhesive plaster, generally suffice ; a lap of three inches or more of the end of the strap is made round the centre of a piece of stout tape, and least it should, by possibility, slip, a few stitches may be inserted—or the strap itself tied to the centre of the tape, the ends of which are brought out at the slits made in the splints, and tied after the application of the plaster to the skin ; this should be carefully done without wrinkling, one strap reaching from immediately below the seat of the fracture to the middle of the calf of the leg, another from below the knee to the ankle ; thus traction will be exerted from both above and below the knee ; the foot by this method is left perfectly free ; it is not bound or pressed backwards or laterally, and the patient has the relief of not having it retained in any constrained position (Fig 1). As a means of counter extension I have the inner splint cut out at the top in a half circle, and a piece of $\frac{5}{8}$th or more india-rubber tubing strained across from each horn of the half circle ; this india-rubber acts as the lac, and, being elastic, yields gently to pressure ; besides being a *constant* counter force to the muscles, it overcomes the tendency to spasm and irregular action, it acts beautifully as a lac, not causing chafing or any kind of abrasion ; a piece of chamois leather or a good fold of soft linen may be laid between the rubber and the skin, which can be changed if accidentally soiled ; the front horn of the half circle is prominent, so as to stand a couple of inches clear of the level of the pubes, and allow the connecting band to the upper end of the outer splint to pass free of the groin, and avoid any pressure on that tender region, or on the saphena vein, a point of no mean importance, and often practically one of great difficulty to arrange. This inner splint will extend from the perineum to four or five inches below the foot, and is a hand-breadth wide for ordinary subject, varying in moderate proportions according to size (Fig. 2). The outer splint is of the same breadth, and extends from about the level of the umbilicus to four or five inches below the foot. The upper end is cut with a horn in front projecting, so as to correspond with that of the inner splint, and through a hole in this, the anterior connecting band of the inner splint is attached, another hole behind allowing the posterior connecting band to be transmitted (these bands are best made of light leather, as they do not yield too much) : these are then tied together as the ordinary lac is ; both inner and outer splints (Fig. 3) are composed of two parts, one sliding inside the other, furnished with a rack on the upper received edge, into which fits a pin with a chisel point, which drops into the rack as the splint is being used for extension, which is accomplished by a simple arrangement of a miniature windlass (as shown in the illustration, Fig. 3). The rotating stem receives the cord as it is wound either by a fixed handle or by a key (detachable for refractory patients,) and the pin being raised by each tooth of the rack as it passes, drops down, and fixes the splint at any desired length ; thus each splint is a special apparatus, being furnished with two straps to the lower segment of each, the inner splint acting *directly* against ramus of pubes and ischium by the elastic, and therefore non-irritating force of the india-rubber band ; and the outer splint acting indirectly by drawing on the same medium as in the ordinary lac, without the disadvantage of pressure on the groin or constriction of any of the parts, as the projecting horns of each splint carry the connecting bands clear. Again, as each splint is capable of being elongated or wound up *independently* by the rack and windlass arrangement, the nicest adjustment possible can be made, and an equable distribution of the extending force arrived at. I also apply a simple splint behind (Fig. 4), shaped slightly to correspond to the fold of nates and tuber ischii at the

1 Hamilton on Fractures and Dislocations. Amer. Edit., 1863.
2 System of Surgery, p. 625.
3 Hamilton on Fractures and Dislocations, p. 406.

upper end, and becoming very broad below, so as to be, in fact, a separate mattrass for the limb, and prevent any possible change of position. The edges of the two side splints do *not include* this posterior splint, but rest *on it*. This posterior splint again is furnished with slits, as will be seen in the illustration, pretty close together, which transmit tapes or straps, and which embrace the side splints. By having the slits pretty close together the hinder edges of the side splints will be more closely brought together than the front when the straps are tightened, and the apparatus will thus lie neatly and pleasantly together. These slits can transmit the tapes or straps, which would retain an anterior short splint, if circumstances required its use. In hospital practice specially, this posterior splint or platform is desirable, as it acts as a mattrass to the limb, the straw beds are available, and their inequalities cause no obstruction to treatment, as is often the case otherwise, and in using the ordinary long splint. The steps of my arrangement are thus carried out; if the patient be very hairy, a razor may be passed over the sides of the limb. The straps of good fresh adhesive plaster are laid on as directed, the ankle being lightly surrounded with wool or wadding. A many-tailed bandage is arranged on the posterior splint, furnished with its pad or folded sheet, a slight padding of wool or wadding being placed under the region for the popliteal space and ham, and also a padding corresponding to the tendo-achillis. This gives great comfort afterwards to the limb when in the extended position, and should not be omitted. The limb is now placed in situ, extension made to gain fair apposition, which can be improved once it is arranged in the apparatus. The many-tailed bandage is now applied with reasonable firmness along the entire limb, the tapes are brought through on each side and tied, the lower tapes being crossed below the foot, that attached on outer side being brought through the inner splint, and *vice versa*; the inner splint is now neatly adjusted to rami of pubis and ischium, the rubber should bear more on the ischium than the pubis, as pressure there is most endurable, and care must be taken to interpose a good fold of wool or old linen between the rubber and the skin to prevent the possibility of fraying or irritation, and the connecting bands to the outer splint attached, the encircling straps are now buckled, and the windlass arrangement put into play to attain any degree of extension required, and proportioned to the amount of muscular excitability shown. The advantages of this adjustment, as compared with those ordinarily in use, are various; for, after some days the patient may be allowed freedom in moving the body, and be supported in bed in the semi-erect position, the arrangement of the splint allowing of this, and the projecting horns keeping the connecting bands from being interfered with by the raised position of the body. Of course, it is not practicable to allow this change of posture when the long splint is used, and the illustration (Fig. 3), taken from a boy under my care in hospital, shows the facility and satisfaction with which this position can be arranged; the comfort and advantage to the patient it is needless to refer to, specially in the young or those far advanced in life.

Again, when the bandages require readjustment from any cause, there is no necessity for disturbing the parts or hazarding disruption of the uniting tissue, or for raising the limb in its fragile state in order to uncoil the bandages or apply them afresh, involving the necessity of entrusting the limb in this position to an assistant, who, however careful, and directed by the most cautious and zealous surgeon, may destroy the position of the fragments, and allow shortening or disruption to take place. I cannot quote a more apt illustration of this than is given in a report by Mr. Butcher, who, with his usual exactness, remarks ("Operative and Conservative Surgery," p. 489), referring to a case of fracture of femur—"On removing the splint to-day for re-adjustment, the assistant unintentionally relaxed the traction at the ankle, and the full amount of shortening was reproduced as on admission." Now, this accident could not occur with the method I have described, all that is required being to loose the encircling straps, and separate the splints, and, if necessary, the outer splint may be loosened at the top and more room allowed. There is no necessity, once the splints are applied, ever to remove them during the treatment, as the bandages, &c., can be readjusted without disturbing the parts concerned.

In the case of a compound fracture or of a wound on either the inside or the outside of the thigh this method is particularly useful and its advantages are well seen in the case of ununited fracture referred to below, where an incision, some six or seven inches long, had to be made on the outside. Here, if the usual long outside splint was used, it would not have been possible to dress the wound without the disturbance of parts it was highly necessary to keep at rest, and a bracket of sufficient size in the splint would have been inconveniently large. In the treatment of the case the outside splint was, when required, *taken off altogether*, the parts cleansed and dressed, and yet no displacement could take place, as the inner splint was just as efficient as the outer one had been for the purposes of extension.

Should there be a wound or injury on the inner side of the limb, the inner splint can be furnished near the upper end with a hinge, opening towards opposite side, and thus, without disturbance of the india-rubber acting as a lac to the outer splint, the inner splint may be drawn out from the limb and the injured parts attended to.

The advantage of having the extending force so arranged that it is constant, and not likely to vary, when any change is required to be made in the dressing, as well as the general applicability of the splint, is well shown in the following case of a patient under the care of Mr. O'Grady :—

CASE OF TROCHANTERIC FRACTURE OF THE THIGH IN A PATIENT SUBJECT TO FREQUENT EPILEPTIC SEIZURES—UNUNITED. OPERATED ON BY MR. O'GRADY.

M. K., a strong girl, aged 25, came under Mr. O'Grady's care on January 3, 1867, suffering from an ununited fracture of the left thigh through the trochanter major. The limb was everted and shortened to the extent of five inches, with much deformity, but the normal length was capable of being restored by extension. An enormous amount of callus had formed around. A long outer splint was applied, and as she suffered numerous epileptic fits, bromide of potassium was administered till very large doses were reached.

On January 14th friction was used with the ununited ends, and the limb was put up in plaster bandages.

At the end of February the plaster was taken off and the limb examined. No union had taken place. Vigorous friction of the ends was used. A long splint from the axilla to below the foot was applied, another on the inside of the thigh, and another small one in front. The limb is now three inches shorter, with neither in or eversion; a mercurial course was also fully tried.

On the 19th May she went home, the parts being locally guarded from injury.

On June 24th she was re-admitted, as the limb was useless. It was now more atrophied, and shortened from four and a-half to five inches, but easily restored to the normal length by manipulation. The limb was placed in a Bevan's splint.

August 26th.—There being no prospect of union taking place, Mr. O'Grady determined on using more vigorous operative interference by cutting down on the ends, and passing drilled points into the extremities of the fracture. An incision seven inches long was made, and with some difficulty, from the depth and density of the parts, four drilled points were introduced to the bone, and left there. The wound was filled with a pledget of oiled lint. The apparatus I have described was applied, and I was happy to have had the opportunity of testing it in a case of the kind, where its utility would be fully tried. The limb was now at proper length arranged in the splints. In

about one hour and a-half after the operation she suffered a severe epileptic fit, but from the compactness and power of the apparatus there was no disturbance of the parts. The day after she suffered two violent fits, and has since had numerous epileptic seizures eight to ten per week. During these, necessarily the limb is subject to considerable violence.

On January 5th, on examination, there is found about one inch of shortening. It is not considered judicious to examine too freely; but the outer splint is now removed, and the inner alone applied, which answered perfectly. The case is still under treatment, and the report shows that the splint acted efficiently and agreeably in the treatment of such a case, complicated with a free external wound on the outside, and with frequent and severe epileptic seizures.

FRACTURED FEMUR IN A BOY AGED TWELVE YEARS.

J. G., a boy aged twelve, was admitted to Mercer's Hospital on the 27th November, 1867, the left knee-joint had been partially ankylosed, and the limb slightly shortened from previous disease. He says, that coming along the quay, where there is a high kerb-stone, he slipped and fell on the thigh. He was brought immediately to hospital, where he was found to have oblique fracture at the juncture of the middle and upper third of the thigh. There was shortening to the extent of one and a-half inches, and a good deal of deformity.

The apparatus not being immediately available at the time, a long splint was applied. On the next day I put on the apparatus above described; it answered admirably, the many-tailed bandage giving pleasant support, the india-rubber band acting as the counter-extending point, and the broad posterior splint keeping the limb steady. The apparatus was not removed during the entire treatment, but it was opened twice, and the bandages readjusted, using more agreeable pressure. The patient never made a complaint from over pressure or irritation of the skin. He was discharged cured on January 1, 1868, a starch bandage being applied to the limb, which was perfect.

The illustration (Fig. 3) is taken from this case, as well shown in the semi-erect position. It will be seen that there is no relaxation of the extending or counter-extending force, and there is no impediment to the change of posture.

FRACTURED THIGH IN A BOY AGED TWO YEARS.

The subject of this case, a fine little boy of two years of age, was thrown against the kerb-stone in the street, causing a transverse fracture of the middle of the right thigh. He was brought to hospital shortly after the occurrence of the accident on August 22nd, 1867. I had a small apparatus made and applied to the limb, the hinder splint being here very convenient, owing to the age and restlessness of the patient. The apparatus was not disturbed during the entire treatment, and the little patient had the enjoyment of the semi-recumbent position. It required twice a turn of the small windlass arrangement owing to the relaxation of the tapes. The patient was discharged on September 22nd, the limb being perfect.

OBLIQUE FRACTURE OF THE THIGH IN A CHILD UNDER TWO YEARS OF AGE.

J. M., a healthy boy, fell off a box, and received a fracture of the right thigh. He was immediately brought to the hospital, and presented, considering his age, a remarkable amount of deformity. I applied the apparatus above described with great comfort to the little patient, and the condition of the limb was all that could be desired; the child could sit up during the entire treatment. He is now about being discharged cured, and the limb perfect.

In these instances, occurring within a few months, I have found the apparatus to answer most satisfactorily, giving the advantage of being able to have the body raised, relieve the tedium of treatment, and without risk of causing irritation of the ankle, heel, or foot.

In cases of hip-joint disease this apparatus is very convenient and even when there is ulceration of the surface or any difficulty in applying an outside long splint, I use the inner one alone, and find it most efficacious and applicable. The india-rubber tension overcoming any tendency to spasm, the patient after the application finds relief, owing to the steadying influence exerted on the limb, the inner splint alone or in combination with the hinder splint, can be used. In disease of the knee joint, likewise, it forms a most useful box, and by gentle traction relieves the irritation caused by pressure. Not the least recommendation I hope, also, is the cheapness of the apparatus; there is nothing of an elaborate construction, nor can it easily get out of order, and if so any one can rearrange it.

These advantages I have found so practically useful, that I trust I have succeeded in adding yet another apparatus, which will at least take its place amongst the many which have been devised for the treatment of these very important injuries and diseased conditions, and commend itself by its utility, efficiency, and practicability.

DR. ROBERT McDONNELL'S LECTURES ON SYPHILIS.

QUESTION OF INCUBATION OF THE PRIMARY LESION OF SYPHILIS.

By CHARLES R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.

THE period of incubation of the primary or local lesion in syphilis is a very difficult ascertainment, and, moreover, it seems by no means to be invariable in its length. The admirably observed case cited by Dr. Robert McDonnell in THE MEDICAL PRESS AND CIRCULAR of Jan. 29th, 1868, gives the period as thirty-one days. Professor Böeck has told me he has remarked that when inoculation is made from an indurated *sore*, there is little or no incubation in general; whilst, when a person is infected from a secondary symptom, the period of incubation is often rather long. Baerensprung puts it down at twenty-eight days, and in the cases, now amounting to a considerable number, where blood and other secretions of syphilitic persons were inoculated on healthy persons, the period of incubation of the primary lesion was found to be about a month. The following case of well-marked incubation period was seen by me at the Farringdon Dispensary, Holborn, on the 16th March, 1865. A modest-looking young girl, aged nineteen, came with a remarkably hard non-suppurating sore on her right lower lip. Submaxillary glands were hard. Diagnosis indurated chancre. The girl was modest and well-bred, and I was at a loss to account for this fact. On inquiry it appeared that she was engaged in marriage to a man, and that one evening, at the beginning of February, he had, on bidding her good-bye, bitten her lip playfully in kissing her. She remembered the time well, because the lip was painful after it. Three weeks afterwards she felt a lump in the lip, which gradually enlarged until it became the size of a hazel nut, when she came to consult me. This gave an incubation period of upwards of three weeks, or twenty-one days. I may add that the girl soon had roseola and periostitis of the tibia and slight alopecia, with mucous tubercles, all of which gradually, though slowly, got well under doses of pot. chlor., and, in about nine months, being free from stains, she married, and became pregnant, after which I lost sight of her.

THE STARCH BANDAGE IN FRACTURES OF BONES OF EXTREMITIES: CASES AND OBSERVATIONS.

By P. C. LITTLE, F.R.C.S.I., &c.

To the uninitiated, the number and variety of surgical appliances for the treatment of fractures must seem surprising and unnecessary. The task of comprehending the

special objects, not to mention the practical applications, of such countless instruments, has often cooled the ardour of the neophytes in surgery, as all can testify. And still these implements are daily becoming more numerous, and more complicated. The so-called improvements made in them, from the time of Hippocrates to the present, may have been useful in the development of mechanical art; but how much have they advanced the science and practice of our profession? Certainly not much in the view of the fact, that, the true conservatives of the healing art—those who adhere to its principles, evince a growing disposition to return to the treatment of fractures adopted by the early fathers of surgery. Having had, for some years, frequent opportunities for testing the advantages of the starch bandage, I am induced to record briefly, a few cases recently treated with it, and the general result of its use, which, I hope, may prove of interest to your many learned readers.

CASE I.—FRACTURE OF INTERNAL MALLEOLUS.

Jan. 6th.—I was called in attendance upon E. K., æt. 41, a master mariner just returned from a long voyage, who had met with an accident on the Atlantic three weeks ago. During a tempest, a loose spar on deck struck him violently on the right leg, about three inches above the external ankle, depriving him almost entirely of the use of the limb, and causing much pain. His sufferings were increased, by his having had, through stress of weather, to remain pretty constantly on deck since the occurrence.

The injured limb is blue and much swollen, particularly about the ankle; but it preserves the form of the sound one, excepting in its being an inch and a-half shorter, in consequence of an old fracture through upper third of thigh. The skin feels tense and hot over the seat of injury. I could discover no crepitus, or solution of continuity in either the fibula or tibia. There was much tenderness on pressure at the internal malleolus. The ginglymoid motion of the joint was normal. Its lateral motion, especially abduction, was unusually free, which led me to suspect fracture of the internal malleolus. There was no dislocation, the bony constituents of the joint preserving their proper relative relations.

I advised six leeches to be applied over the inner ankle; afterwards a warm poultice of bran and linseed-meal; the limb to be retained in the horizontal position on a back-splint with foot-piece, which I extemporized, and retained in its place by a few turns of a bandage below the knee and over the instep. As the bowels were confined, I prescribed to be taken at bed-time a bolus containing: pul. jal. co. gr. xx., with cal. gr. x.; nourishing diet, no stimulants.

Next day he was a good deal easier. There was still much heat about the ankle, but the pain and swelling had so much diminished that I had no difficulty in making a satisfactory examination of the injured parts. I then discovered a transverse fracture of the internal malleolus, immediately at its junction with the shaft of the tibia. There was no displacement of the fragments, unless in abduction of the foot, when a distinct interval was created at the seat of fracture. I recommended the application of a cold evaporating lotion: (Liq. ammon. acet. ℥iij., sp. vin. rect. ℥ij., aquæ ex font. ℥xij.), which allayed the heat and swelling in two days.

I then coated the limb, from the toes to above the knee-joint, with cotton wadding, laying it on pretty heavily over the joints and shin to obviate pressure; after which I adjusted on either side of the ankle, broad slips of pasteboard, well softened in thin starch, and over all applied evenly, and with considerable pressure, the starch-bandage. I began from above the toes, and made several times the figure of 8 across the ankle for additional support. Over this I ran a dry roller, and lashed all to the extemporised splint to harden. In less than two days the bandage had become consolidated, the splint was laid aside, and I allowed the patient to get up, and occasionally move about the house, supporting himself with a crutch, and the affected limb with a wide calico sling around the neck and sole of the foot. I did not find it necessary to remove the starch apparatus until about a fortnight after this, when he had fully regained the use of the limb, and resumed his active occupation.

CASE II.—FRACTURE OF TIBIA AND FIBULA.

Jan. 8th.—J. R., aged 47, a very able and healthy man, though rather intemperate, while returning to his residence in the suburbs the night before last, stumbled against the gutter embankment, fell heavily, and fractured his right leg. Being unable to walk, he was carried home in much suffering and put to bed. The treatment followed, up to my seeing him, was hot stupes locally, and stimulants internally. The right leg was greatly enlarged, bright red, and shining; tender to the touch, especially around the ankle, which was brawny-looking. The foot was slightly everted; the outline of the fibula was interrupted by a small depression about two inches above the external malleolus; the internal malleolus seemed more prominent than usual. The motions of the joint were uncommonly free, abduction remarkably so, apparently from relaxation of the internal ligament. I did not persevere in the examination, as it was intolerable to the patient. Therefore, directing my attention to the relief of the more urgent symptoms, I extended the limb on a hair pillow, using the end board of the bed as a support for the foot, and ordered the immediate free leeching of the ankle, the administration of an active saline aperient, low diet, and perfect rest of the limb. Under this treatment, the high inflammation had been so far subdued by next day that I was enabled to fully investigate the case. I then found crepitus with lateral motion of the joint, and an oblique fracture of the fibula about two inches from its lower extremity, and fracture also of a fragment of the internal malleolus, with stretching of the ligament attached. I prescribed the cold evaporating lotion, as in Case 1. In two days afterwards I applied the starch apparatus, and with the usual success. The patient was able to go out on business, with the support of a stick, in three weeks, and can now walk without any such help, as well as before the accident.

A short time previous to the occurrence of those fractures of the lower extremity, I had under my care two cases of a similar character, of which I only preserved the following short notes:—

CASE III.—FRACTURE OF TIBIA AND FIBULA.

J. N., aged 60, with right tibia and fibula broken two inches above ankle, from a fall off a car. I had twice attended him previously for dislocations of right ankle-joint.

CASE IV.—FRACTURE OF FIBULA.

J. S., aged 42, right fibula fractured three inches above external malleolus, the smaller fragment overlapping the larger; luxation outwards of foot; and stretching of internal lateral ligament, resulting from a slip off a curb-stone.

In both cases rapid and complete recoveries followed the use of the starch apparatus.

CASE V.—FRACTURE OF RADIUS.

Oct. 11th.—I was called in haste to Mrs. M., æt. 24, who had fallen "heels over head" down stairs, her right wrist coming under her three times. On my arrival, finding that she had become faint, I ordered her some wine, which soon revived her. She complained of intense pain in the fore-arm; inability to move it; and necessity of supporting it with the left hand. She was suffering from severe shock, and afraid to allow anyone to touch the disabled limb. After a little time, I succeeded in examining it. The hand was everted, the palm looking downwards, and outwards. The wrist was tumid, blue, and very painful in handling. There was a swelling from the base of the metacarpal bone of the thumb, in the line of the radius, for about two and a half inches, where it ended in a sharp

prominence, with a depression behind, that is, above it. On fixing the radius, and rotating at the same time the hand, crepitation was distinctly heard, and solution of continuity of the bone felt.

I placed the hand on a thin piece of board, and slung it to the neck; ordered the cold evaporating lotion to be constantly applied to the wrist, and the patient to remain quiet.

Next day I put up the limb in the starch bandage in the usual manner, and after three weeks I removed the appliance, and substituted a dry roller. The patient soon recovered the use of her limb without deformity.

The causes of fracture of the limbs are manifold, and the circumstances which modify their effects are even more numerous. In accidents, such as the above, fracture generally occurs from a force acting indirectly on the bone, owing to the economic and physiological laws of our structure. When, however, as in Case 1, a great force strikes directly a slender bone like the fibula, destruction of its continuity is anticipated. Why was not such the effect in the case referred to? A smart stroke of a poker across the fibula has been known to break it, without injuring the tibia. Here, a large spar rolls with great velocity against the fibula, and only fractures the tibia. True, the fibula is more elastic, not so superficial, better covered with muscles, less useful in locomotion than the tibia. But, a better explanation appears to be in the mechanical laws of concentration and diffusion of force. The impulse against the fibula of so broad a substance as the spar, was diffused towards the extremities of that bone, while the same force was sufficiently concentrated on the opposite side of the limb to fracture the cancellous lower extremity of the tibia. Professor Smith, of this city, considers simple disjunction of the inferior epiphysis of the tibia to be of very rare occurrence. This is an example of that unusual pathological condition. These cases exemplify the greater frequency of fracture of limbs on the right side of the body.

The treatment of fractures by the starch bandage, in my experience, has been most satisfactory. Its simplicity, inexpensiveness, and readiness of application; its obviating the dangers of inflammation of the lungs, bed-sores, and general impairment of health; its allowing the patient to move about soon and attend to business; or, if an hospital patient, its permitting of his leaving in a short time, to give place for more urgent demands on the charity; and, above all, its perfect adaptation to the end we should steadily keep in view,—all recommend it, I think, before any other appliance for the management of fractures of extremities. The principle of our treatment of fractures is, to restore to their original positions, and so retain the divided bones. This, the starch bandage achieves, by efficiently controlling muscular action, and preserving co-aptation of the fragments. The wet starch bandage is so powerful as an evaporating medium, that it is particularly useful in subduing slight inflammatory conditions which attend fractures. I confess, I have been slow to apply it until high inflammation had been reduced by other means, notwithstanding the contrary practice of Mr. Erichsen, in University College Hospital.

There is no doubt plaster of Paris, so strongly advocated by Dr. Gurlt, of Berlin, is a more cleanly, and more quickly solidifying material than starch, but it is not so cooling, nor so easily obtained as the latter, which is found everywhere. For a considerable period, the practice of putting up fractures, with simple adhesive plaster, has been followed with great success in the United States, and astonished Mr. Spencer Wells on his recent holiday trip to that world of invention. Mr. Wells speaks highly of that plan of treatment, but, with good, reason, fears that sufficient immobility of the bones cannot be obtained with that material. This, I should say, is particularly to be apprehended in fractures of the femur and humerus.

It appears that the starch bandage was first used in this city by Mr. Kirby, eighteen years ago. It has since been sparingly resorted to, although strongly recommended in our journals, by such able surgeons as Mr. Fleming, and Mr. Maurice Collis. It is probable, however, that, with the present advance in professional knowledge, this valuable appliance will soon be very widely adopted, as being the most rational and uncomplicated means of treating fractures. When that period arrives, we shall be able, in this kingdom, to dispose of such an accumulation of implements of wood, straw, tin, iron, brass, leather, gutta-percha, &c., now employed for fractures, as would constitute an immense, if not a becoming monument to the memorable advocate of the starch bandage, the Baron Seutin, of Brussels.

Hospital Reports.

SURGICAL RECORDS.

By WILLIAM STOKES, Jun.,
SURGEON TO THE MEATH HOSPITAL AND RICHMOND SURGICAL HOSPITAL.

STRICTURE OF THE URETHRA.

As this subject is one which unquestionably is of such eminently practical importance, I trust a brief record of a few cases of this disease, which, with one exception, I treated by internal urothrotomy in the manner first suggested and practised by M. Maisonneuve, may not be considered devoid of interest.

CASE I.—STRICTURE OF URETHRA OF TWELVE YEARS DURATION—INTERNAL UROTHROTOMY.

W. B., æt. 42, was admitted into the Meath Hospital on October 20, 1865. He stated that he had suffered from urethral stricture for upwards of twelve years, and ascribed the disease to repeated attacks of gonorrhœa, which he had had during his youth. For many years previous to his admission into hospital, he was in the habit of having instruments passed from time to time. Of late, considerable difficulty was experienced in doing so, and when he came under my observation in the Meath Hospital, No. 3 catheter was the largest instrument that could be introduced, and that by very delicate manipulation. Having had no reason to change my opinion as regards the great value of M. Maisonneuve's method of treating urethral stricture, I recommended it to the patient, and as he willingly complied, the operation was performed without any difficulty whatever on October 28th. I may mention that in this case, the stricture was divided on the under surface of the urethra. After the operation, a large conical-shaped gum-elastic catheter was introduced without any difficulty, and kept in the bladder for forty-eight hours. During convalescence, the patient had no rigor or other evidence of constitutional disturbance. On November 5th the patient left the hospital able to pass water in a full and uninterrupted stream.

CASE II.—COMPLICATED DOUBLE STRICTURE OF URETHRA OF FOURTEEN YEARS' DURATION: SCROTAL FISTULA COMMUNICATING WITH URETHRA: INTERNAL UROTHROTOMY.

W. K., æt. 52, formerly a soldier in the Bengal Army of the East India Company, was admitted into the Richmond Hospital under my care on January 28th. The patient states that fourteen years ago he contracted gonorrhœa in India, and was treated solely by injections of sulphate of copper, since which he has suffered more or less from difficulty in passing water. About eight months ago the patient states an abscess formed in the mesian line of the scrotum at its most depending portion, and since this opened the urine has made its way through it, forming a urinary scrotal fistula. On examining the urethra, I found, situated in the anterior portion of the canal about three inches from its orifice, a hard callous stricture through which, although I made repeated attempts, I could not succeed in introducing the smallest gum-elastic catheter. As all attempts to heal the fistula would necessarily prove unavailing unless the stricture were in the first instance

successfully treated, I determined that should I be able to introduce one of the filiform bougies of Maisonneuve to divide the stricture by internal urothrotomy. I fortunately succeeded in passing the bougie, and in doing so, determined the existence of a second stricture in the usual situation. The patient did not lose more than a few drops of blood during or after the operation, and after this was completed, I succeeded in introducing without difficulty a No. 9 conical gum-elastic catheter, and drew off a large quantity of urine. Since the operation no unfavourable symptom has supervened.

CASE III.—STRICTURE OF URETHRA OF SIXTEEN YEARS DURATION, COMPLICATED WITH PERINEAL FISTULA: PERINEAL SECTION.

M. H., æt. 62, was admitted into the Meath Hospital on the 16th of last December, suffering from urethral stricture, and perineal fistula, the latter complication having existed for upwards of six years. For some time after his admission, I made numerous but unavailing attempts to introduce an instrument into the bladder. Neither the filiform bougie of Maisonneuve, or the catgut director of Dr. Hutton's railway catheter, or the finest of the self-dilating sea-weed bougies, could possibly be introduced. On consultation with my colleagues, I determined to perform a modification of Professor Syme's operation of perineal section. According, on the 18th of January, the patient was brought into the operating theatre, and placed in the lithotomy position. A large silver catheter was introduced into the urethra down to the seat of the stricture, and held firmly in that situation by my colleague, Mr. Wharton. I commenced the operation by making an incision with a long straight bistoury, along the raphe of the perineum, terminating at a point about three-quarters of an inch in front of the anus. The soft parts were divided freely down to the extremity of the silver instrument, which rested against the stricture. I then introduced, and with the nail of my left index-finger felt distinctly the contraction beyond the point of the large silver catheter. The stricture I then succeeded in dividing, with the point of the straight bistoury, which I used, in the first instance, for making the external incision. In doing this, which required some delicate manipulation, I took especial care to keep the handle of the bistoury well depressed. With greater facility than I had at all anticipated, I arrived at the dilated portion of the canal beyond the seat of the stricture. At this juncture, Mr. Porter handed me a full-sized gum-elastic catheter, without any stylet, which I fortunately succeeded in introducing into the bladder through the wound. The next difficulty I had to encounter was to bring the fore-part of the catheter through the anterior portion of the urethra. For accomplishing this, I had recourse to a manœuvre which Mr. Porter's ingenuity at once suggested, and which was attended with complete success, and I can recommend it most strongly to all surgeons who may have to deal with similar cases. It consists in removing the ivory head of the catheter which was introduced through the wound, into the bladder, in the first instance; secondly, in introducing through the orifice and anterior portion of the canal a conical-shaped bougie, the extremity of which, when brought down to the wound, was fixed firmly into the open end of the gum-elastic catheter. The bougie is then slowly withdrawn through the anterior portion of the urethra, bringing along with it the gum-elastic catheter. The two instruments are then separated, and the catheter fixed in the urethra in the ordinary manner. Since this operation was performed, the case has progressed most favourably. The wound in the perineum is gradually closing; little or no urine escaping through it, and large-sized catheters are frequently introduced with the greatest facility into the bladder.

CASE IV.—STRICTURE OF THE URETHRA OF TWO YEARS DURATION.—INTERNAL UROTHROTOMY.

C. M., æt. 34, was admitted into the Meath Hospital under my care on the 4th of last October, suffering from stricture of the urethra, which he stated he had had for the last two years. The stricture was situated in the membranous portion of the urethra, and the disease the patient attributed to an attack of gonorrhœa which he had three years previously, and which he had much neglected. As this was in every respect a perfectly uncomplicated case, but so extremely close a stricture as not to permit of gradual dilatation by the ordinary gum-elastic catheters (which, though the slowest, I believe to be the safest mode of dealing with the great majority of such cases), I determined to treat it by internal urothrotomy, and accordingly performed the operation, and without any difficulty, on the 8th of last October. After the operation I introduced a No. 10 catheter. No rigor or any evidence of constitutional disturbance supervened during the patient's convalescence, and when he left the hospital so large an instrument as No. 12 could be introduced without any difficulty whatsoever.

CASE V.—STRICTURE OF THE URETHRA OF FIFTEEN YEARS' DURATION—INTERNAL UROTHROTOMY.

T. N., æt. 54, was admitted into the Meath Hospital under my care on the 6th of last December. The case presented all the symptoms, local as well as constitutional, of urethral stricture. The stream of urine was extremely small, and the desire for micturition so frequent as to make me suspect the case was complicated with some prostatic irritation. The stricture was an extremely close one, so much so that it was not until I made frequent attempts that I at last succeeded in introducing a No. 2 catheter. Any larger instrument than this I failed in getting in. Accordingly, I determined to treat the case by internal urothrotomy, which operation I performed on the 9th of December, and immediately after I introduced a No. 10 catheter, which I fixed in the bladder in the ordinary manner. Nothing untoward occurred during the patient's convalescence, and on the day he left hospital (December 17) No. 11 gum-elastic catheter was passed without the slightest difficulty. The functions of the bladder, also, were completely restored, the frequent and urgent desire for micturition, which he suffered from previous to the operation, having completely subsided.

I might adduce the particulars of other cases of stricture which I have treated successfully in the same manner; but for the present I think the above cases are sufficient to show the great practical value of internal urothrotomy in the treatment of strictures of the urethra.

PAUPERISM.—The Poor-law Board have issued another half-yearly return showing the state of pauperism in England and Wales on July 1, 1867. The number of persons in receipt of relief from the rates is given as 926,303, but returns relating to places not under Boards of Guardians, comprising nearly 1 per cent. of the population, are not forthcoming. The return shows an increase of 5 per cent. over the number on July 1, 1866; and there is an increase of 6·7 per cent in the number of adult able-bodied paupers, which is 144,665. The pauperism of July 1, 1867, was constituted thus—Men, 187,239; women, 401,557; children under 16, 332,043; and vagrants, 5248. The adult paupers 16 years old and upwards, are thus classified:—Able-bodied, 34,102 men and 110,563 women; not able-bodied, 135,388 men and 268,038 women; insane, 17,729 men and 22,956 women. There were also 808 children insane, making the whole number of insane paupers 41,513, an increase of 2083 over the number a year before. The increase of pauperism shown by this return is far greater in the metropolis than in any other division of the kingdom. Instead of being 5 per cent., it amounted in the metropolis to 18·7 per cent.—7·8 per cent. in that part which is in Kent, 11·8 per cent. in the part in Surrey, and no less than 22·4 per cent. in that part which is in Middlesex. The increase is very marked in Poplar and other districts at the East-end of London. The increase in adult able-bodied paupers in the metropolis, instead of being 6·7 per cent., was 13 per cent. The total number of paupers relieved in the metropolis on July 1 was 97,981 in 1865, 106,202 in 1866, 126,094 in 1786.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR JANUARY, 1868.

1 Companies.	2 Date and Place of Collection.	3 Temperature[1] in centigrade degrees.	4 Total solid impurity in 100,000 parts.	5 Organic Carbon.	6 Organic Nitrogen.	7 Nitrogen as Nitrates and Nitrites.	8 Ammonia.	9 Total Combined Nitrogen.	10 Previous Sewage Contamination (Estimated.)	11 Total Hardness.
THAMES.										
Chelsea ...	21ST JANUARY. Cab-rank, Horse Guards.	7·2 C.	29·2	·353	·058	·339	·001	·339	3080	15·4
W. Middlesex ...	21ST JANUARY. Cab-rank, Portland-road.	8·0 ,,	31·4	·271	·027	·367	·001	·395	3360	17·3
Southwark and Vauxhall ...	21ST JANUARY. Barclay's Brewery.	7·7 ,,	32·2	·485	·061	·323	·001	·385	2920	17·5
Grand Junction ...	20TH JANUARY. Cab-rank, Woodstock-street.	6·6 ,,	31·5	·345	·031	·366	·000	·397	3340	19·7
Lambeth ...	21ST JANUARY. Cab-rank, Lambeth-road.	7·2 ,,	30·4	·542	·062	·336	·002	·400	3050	16·5
OTHER SOURCES.										
New River ...	21ST JANUARY. Cab-rank, Tottenham-Ct.-Rd.	8·0 ,,	30·2	·115	·014	·361	·001	·376	3300	20·5
E. London ...	22ND JANUARY. Slater's Lampblack Works, Old Ford-road.	6·4 ,,	36·0	·147	·024	·307	·001	·332	2760	22·8
Kent ...	23RD JANUARY. Deptford Railway Station.	7·2 ,,	44·8	·064	·013	·408	·001	·422	3770	26.2
Loch Katrine ...	FEBRUARY. Glasgow.		3·28	·256	·008	·031	·002	·041	0	0·3
Lancaster ...	SEPTEMBER. Lancaster.		3·54	·157	·001	·036	·001	·038	50	0·1
Manchester ...	NOVEMBER. Manchester.		6·8	·242	·026	·001	·001	·028	0	2·7
Leicester ...	NOVEMBER. Leicester.		23·7	·506	·020	·001	·001	·022	0	13·4
Preston ...	DECEMBER. Preston.		14·7	·515	·040	·001	·003	·044	0	6·7

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by waters supplied to the towns of Lancaster, Manchester, Leicester, and Preston, when submitted to the same analytical processes. The numbers in columns 4, 5, 6, 7, 8, 9, 10, and 11 all relate to 100,000 parts of the waters. The table is to be read thus: the Chelsea Company's water collected on 21st January, at the Horse Guards cab-rank had a temperature of 7·2 C., it contained 29·2 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·353 lb. of carbon and ·058 lb. nitrogen. This solid impurity also contained ·339 lb. of nitrogen in the form of nitrates and nitrites, besides ·001 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·339 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 380 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames and its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 15·4 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The waters delivered in London during the latter part of January by the Chelsea, and especially by the Southwark and Lambeth Companies were in such a muddy condition as to render them totally unfit for domestic use. The Thames has overflowed its banks above the point at which the water supply is withdrawn, and by washing the surfaces of cultivated fields and mingling with the contents of stagnant ditches and ponds has become contaminated to an intolerable degree. Those companies which, like the West Middlesex and Grand Junction, possess ample and efficient filtering apparatus, were enabled so far to cope with the difficulty as to send out their supply free from suspended matters. A week later, however, than the date when the samples were collected, the water of the Grand Junction Company had also become turbid, but much less so than that delivered by the Southwark and Lambeth Companies. It will be seen from a reference to the analytical Tables that the Thames was comtaminated at the time the samples were taken with double the usual proportion of organic matter. Besides dissolving the soluble manure matters from cultivated fields, the recent heavy rains flushed the sewers of Oxford, Windsor, &c., dislodging great quantities of putrescent animal matters and sweeping them into the Thames; hence the large proportion of organic carbon and nitrogen, and the great previous sewage contamination in the waters of those companies which derive their supply from that river. The West Middlesex Company's water, though well filtered and perfectly transparent, had been thus contaminated to an extent which would be produced by the admixture of one-third of a gallon of average filtered London sewage with each ten gallons of the water. The River Lea also exhibits a very high previous sewage contamination, but at the time when the New River and East London Companies samples were collected it had not been affected like the Thames, for, although the East London water was full of suspended brown particles, the analyses of these waters show that the organic carbon and nitrogen are remarkably low for the season. The Kent Company's water was slightly turbid from yellow particles.

ROYAL COLLEGE OF CHEMISTRY,
London, Jan. 31, 1868.

1 The average mean temperature of the Thames during the three days, January 20, 21, and 22, was 5·7° centigrade; the average during the week ending January 18th was 3·3° centigrade.

THE CLAIMS OF THE ST. ANDREWS MEDICAL GRADUATES TO THE FRANCHISE.

THE following memorandum, dated Feb. 12th, concerning the claims of the St. Andrews Medical Graduates to the franchise, has been submitted for the consideration of the Right Hon. the Chancellor of the Exchequer by the Council of the St. Andrews Medical Graduates' Association:—

"The regulations regarding the conferring of medical degrees in the University of St. Andrews adopted in 1826, continued in force (with only slight alterations in 1833) until 1863, when they were altered by the Scotch University Commissioners.

"The degree of doctor of medicine of St. Andrews is recognised by 'The General Council of Medical Education and Registration of the United Kingdom,' and entitles its holder to the same status, and confers on him the same legal rights as the degree of M.D. of any other university.

"The regulations empowered the university to confer the degree of M.D. on any legally-qualified practitioner of good character after passing the requisite examination. In 1863 the Scotch University Commissioners continued this power but restricted the number of degrees granted in such manner to ten annually, and required the candidates to be upwards of forty years of age.

"The regulations in force both before and after 1863 provide a curriculum of the studies to be pursued in the university by resident students who are desirous of obtaining the degree of doctor of medicine; but as there is no recognised hospital at St. Andrews, and no means of obtaining a thorough medical education there, these regulations have been practically in abeyance.

"During the war early in this century the degree of M.D. was conferred on persons obtaining medical appointments for instant duty in the army and navy, on the certificate of eminent London physicians or surgeons, but since then no one has been admitted except after examination.

"The examination for the degree lasts three days, is partly written, partly *vivâ voce*, and is in every respect similar to that for the membership of the Royal College of Physicians of London.

"The examiners are unknown to the candidates, and a certain number of them are always distinguished graduates of other universities.

"The Scotch Reform Bill of last session provided for the admission to the general council of their university, and in consequence to a vote for its member in Parliament, of those graduates only who had attended classes during one session in the university; with the exception, in the case of St. Andrews, of those doctors of medicine who had obtained their degrees since 1863.

"By this clause, all the doctors of medicine of Edinburgh would be entitled to be placed on the general council, and to vote for the member of parliament, whilst all but 46 out of the 1350 doctors of medicine of St. Andrews would be excluded both from the general council and the franchise. The 46 voters are admitted under the proviso they have not resided at the university, and their examination has not been more stringent, but has been less in extent than that of the graduates who passed in previous years.

"The reasons which have been given for the exclusion from the franchise of their university of a large body of educated men in positions of responsibility and trust are various. It has been said—

"(1.) That the degrees have been sold. The registrar of the university writes that there is no truth in this statement.

"(2.) That the examination is poor and unsatisfactory. For some years before 1858 the rejections were in the proportion of 1 to 4 admissions. No calculation has been made since then until 1862, when 606 candidates passed; in this year the rejections were 1 in 8½. This large number of admissions is no proof of a lax examination, but furnishes strong evidence that the limitation in the number of M.D. degrees granted by the university to ten annually, and to candidates above 40 years of age, does not meet the requirements of the profession and the public. Very many do not wish to become doctors of medicine until they have been some years in practice and are able to know whether such a degree would be of advantage to them or not. Such men, and those who for various reasons—improving social position, a wish to become consultants, &c.—desired, or thought that at some future time they might need, the M.D. degree, and who under the old rules would have been distributed over many years, were in consequence of the new regulations obliged to present themselves for examination in this year, or be excluded in large numbers by the limitation to ten annually. Under these circumstances, and considering that all the candidates were at the time of their examination legally-qualified practitioners, the number of rejections (1 in 8½) is conclusive as to the validity of the examinational test. The Army and Navy Medical Boards require every candidate for employment in the services to be at the time of his application a legally-qualified man, and to undergo another examination: 32 per cent. of the candidates who are members of the Royal College of Surgeons of England, 18 per cent. of those who are doctors of medicine of Edinburgh, and only 8 per cent. of those who are doctors of medicine of St. Andrews, fail to pass. In London, 39 doctors of medicine of St. Andrews are attached to the hospitals, the medical schools, and the large infirmaries, including among them St. Bartholomew's, Guy's, St. George's, Westminster, London, Charing-cross, Bethlehem, St. Luke's, and 22 similar institutions. *In the provinces, there is hardly a large town in which a doctor of medicine of St. Andrews does not hold an important post in connection with the chief hospital.* Nineteen medical superintendents of county asylums are St. Andrews M.D.'s, as also two deputy-lieutenants, twelve justices of the peace, ten coroners and deputy-coroners, six examiners in medicine, six officers of health, three F.R.S., eleven F.R.C.P.Lond., and fifty-five F.R.C.S.Eng. The ratio of rejections and the success of the doctors of medicine of St. Andrews at the army and navy boards are proofs of the strictness of the examination, and their social and professional position is cogent evidence of public confidence and esteem.

"(3.) That the majority are Englishmen, and should not vote for a Scotch university. If the university does not refuse to admit to examination any one who is not a Scotchman and to grant him the degree of M.D., there can be no reason (in the absence of express statute to the contrary, in existence prior to the candidate's offering himself for examination) why he should be deprived of the rights and privileges which in other universities pertain to that degree. In no other university, and now not in St. Andrews, is nationality taken into account, and by the late bill no English graduate of Edinburgh was excluded from the franchise of his university.

"(4.) That the medical graduates have not resided in the university. If St. Andrews is to grant medical degrees at all, it must grant them to non-residents, for it has no hospital and no school of medicine. And even if it were in future to require residence of all its graduates, those who have already obtained their degrees should not be affected by regulations which were not in existence at the time of their examination. The doctors of medicine have complied with all the regulations of the university, and claim to be entitled to exercise every right or privilege which may be granted to any medical graduate. The University of London is in a similar position: it provides no medical school, and consequently requires no residence within its walls; but it has a representative in Parliament, and its doctors of medicine have a vote in his election.

"Should the medical graduates of St. Andrews be excluded from the franchise, the doctors of medicine of the United Kingdom would be divided into two classes, voters and non-voters, the latter being nearly all the St. Andrews men. The result would not be doubtful. The public would recognise this difference as a mark of inferior rank and knowledge; and a large number of educated men, scattered over the whole kingdom, and possessing the confidence and esteem of their neighbours, would be exposed to injurious comparison with their brethren, who, possessing no better degree, are yet voters, and would suffer a grievous injustice and a serious injury to their social and professional status; an injury which, in the army and navy, would not be confined to the individual, but would be destructive of the subordination and efficiency of the services."

Reviews.

ATLAS OF PORTRAITS OF DISEASES OF THE SKIN.

Edited by the New Sydenham Society. Seventh fasiculus.

OUR readers are so well acquainted with the portraits of this Atlas, which have been already issued, that we need not give any explanatory introduction as to their merits or peculiarities. There are three plates in this seventh fasiculus: Plate XVIII. representing a case of Molluscum Simplex, "seu fibrosum;" Plate XIX. representing a case of Lupus-Psoriasis; and Plate XX. representing a case of Porrigo Contagiosa (e Pediculis),

or Common Porrigo. In this instance the disease is depicted as occurring on the occiput of a child, and the plate is a remarkably good one, especially when closely examined through a magnifying glass. At the left hand corner are given various synonyms by which the disease is known, a very useful and most necessary kind of information at present, when the medical world is inundated with a complex cutaneous nosology, which Mr. Erasmus Wilson is striving to reduce to something like order and simplicity in his new "Journal of Cutaneous Medicine." Plate XIX. which is, perhaps, a little highly coloured, but which is otherwise perfect, has also a table of synonyms, such as we have above described. Plate XVIII. represents a case of Molluscum Simplex in an adult male; like the rest, it is quite worthy of being placed in the same scale of merit with its seventeen predecessors.

EDINBURGH MEDICAL JOURNAL. For February, 1868. No. CLII.

In the pages of this excellent serial we find reviews on Laryngoscopy, and Cholera in India, and other important questions; varied miscellaneous matter; and eight "original communications," some of which are particularly worthy of note, and all respectable. Among the contributors will be found the names of Reith, Taylor, of Nottingham; Charles Bell, Sanders, Arthur Mitchell, Grainger Stewart, and A. Christy Wilson. The first paper is a particularly good one.

THE DUBLIN QUARTERLY JOURNAL OF MEDICAL SCIENCE. February, 1868. No. LXXXIX.

We have much pleasure in calling attention to the excellent material to be found, as usual, in the pages of our respected contemporary.

There are no less than seventeen reviews of greater or lesser length; and a medical miscellany of a wide and varied character.

There are eight "original communications" on various subjects in medicine, surgery, and obstetrics; and the names of the contributors are, in most cases, quite sufficient to secure a good reading for their essays. These names are—W. Stokes, (Jun.); A. H. M'Clintock; Fleetwood Churchill, President of the Irish College of Physicians; James Cuming; Robert McDonnell, F.R.S.; John K. Maconchy; William Moore; and Lawson Tait. The "get up" of the journal is as good as usual.

NELIGAN'S MEDICINES: Their Uses and Mode of Administration. By Rawdon Macnamara, Professor of Materia Medica, Royal College of Surgeons in Ireland, &c. Including a complete Conspectus of the British Pharmacopœia, an account of New Remedies, and an Appendix of Formulæ. Seventh Edition. Dublin: Fannin & Co. 1867.

This is a very large book of Aldermanic proportions, numbering no less than 934 pages of royal 8vo., well printed on good paper, handsomely bound, and issued by its enterprising publishers in a manner, and at a price, which is most creditable to them, and to the Dublin School of Medicine.

Our readers are so familiar with previous editions of this "*Magnum opus*," that no introduction or laudatory trumpet is called for now. When a book has reached its seventh edition within, comparatively speaking, a few years, the fact itself furnishes a test of merit and usefulness which the medical profession are not slow to recognise and rate at its proper value.

The preface states that, while many articles which had become obsolete have been omitted from this edition, yet more than 200 pages have been added to the extent of the sixth, which exceeded the fifth by 150 pages. Two new chapters have been added—one on Waters, the other on the Administration of Medicines; and Mr. Macnamara makes due acknowledgment of the labours of Dr. Hewitt, not only for the great improvement in the botanical descriptions, and the addition of a useful tabular classification of plants and vegetable products used in medicine; but also "for his unwearied supervision of the rest of the volume."

Whether the name of the late Dr. Neligan ought to be ignored or continued in this work is discussed at length in the preface. We shall not enter into that question here, further than to say that, in our opinion, Mr. Macnamara has acted wisely in retaining the name of Neligan as he has done. To ignore the name of the man who projected, wrote, and carried through no less than five editions of a standard work, were an injustice to his memory. The basis and plan of the work is still Neligan's, while the work of Professor Macnamara is so clearly distinguished, and so well appreciated by all whose opinion is worth anything, that it would be no small injustice to his reputation to allow any excuse whatever for the statement that he committed, what he never did, and, we are sure, never will commit, the literary dishonesty of entering into another man's labours without frank and open acknowledgment of the fact.

The mode of arrangement of the seventh is the same as in previous editions of this book. The botanical part is much improved, and so is the chemical; and very many useful additions and alterations are made throughout the bulk of the volume, which we cannot specify or illustrate, save by giving quotations at inconvenient length. The index is much improved and extended, and cross references are given which will much reduce the work of the student and practitioner.

We shall make a few remarks on the two new chapters; and first on "Chapter XXI.—Waters." Professor Macnamara divides waters into three great classes—fresh waters, sea waters, and mineral waters. He commences with distilled water, passes under review the therapeutic value of fresh waters, then of sea waters, and finally of mineral waters. This arrangement he follows, "nature herself apparently having adopted it;" but admits that "when we come to the subdivision of mineral waters, much will arise to perplex us." He then proceeds as follows:—

"The first classification adopted by the older writers was founded upon their sensible properties, the most remarkable, perhaps, of which is their temperature, mineral waters having been by them subdivided into cold waters and hot waters. But increased experience soon demonstrated the great difficulties attendant upon this system of classification; for though in extreme cases the contrast was well-marked, as between the classic Styx in Arcadia, the temperature of which is 33°, and the Geysers, or boiling springs of Iceland, the temperature of which is 212°, sufficiently elevated to boil an egg, still the differences of temperature pass so imperceptibly into each other, that it frequently becomes a matter of difficulty to decide to which class the mineral water should be referred; besides which, waters differing from each other in temperature but possessed of similar chemical composition, and of closely analogous remedial powers, would, by such a system of classification, appear in different classes. A classification founded upon their therapeutic properties appears to me, in our present state of knowledge upon the subject, impracticable, those most widely differing in their chemical and physical properties being equally vaunted in the treatment of the same classes of diseases. For the purposes of this work I consider it sufficient to discuss them under the following heads—Sulphurous, Chalybeate, and Saline waters. The special therapeutic advantages of all these several varieties of water will be most conveniently discussed under their respective headings. Here it will be sufficient to remark in general terms that more than a fair share of the occurring benefits attendant upon a sojourn at even the most celebrated of the Spas should not be ascribed to them Something must be allowed for change of climate and of scene; agreeable society; regularity of diet and of hours; open air exercise; and, above all, release from the toils of business and relief from mental worry. So fully impressed were the ancient Romans with the value of these most important items in a course of mineral water treatment, that the following lines were inscribed over the baths of Antoninus:—

'Curæ vacuus hunc adeas locum,
Ut morborum vacuus abire queas;
Non enim hic curatur qui curat.'"

Under the head, "Sulphurous Waters," we find valuable information about the springs at Aix-la-Chapelle, Baden, Aix-les-Bains, Harrowgate, Strathpeffer, in Scotland; Lisdoonvarna, in Ireland; and Nenndorff, in Hesse. Under Class II., "Chalybeate Waters," we are referred to Lisdoonvarna, Harrowgate, Tunbridge Wells, Sandrock, Spa, and Schwalbach. Under Class III., "Saline Mineral Waters" (which are subdivided into *Alkaline, Aperient,* and *Calcareous*), we are referred to the thermal spas of Vichy, Carlsbad, and Ems; and to the cold springs of Vals, Fachingen, Seltzers, and Marienbad.

Further, we are given a considerable amount of knowledge most useful to the prescriber as regards the aperient saline waters of Pullna, Seidlitz, Kissengen, Leamington, Baden-Baden, Wiesbaden, Homburgh, and Cheltenham, as well as particu-

lars of the calcareous or earthy springs of Wildungen, Leuk, Lippspringe, Weissenburg, Bath, and Scarborough. In addition to the foregoing varieties, which, according to Mr. Macnamara, undoubtedly possess more or less of saline matter to account for their real or a reputed efficacy in the treatment of the several diseases for the relief of which they have gained their reputation, there is further mention made of a class of waters, which, possessing no other character to recommend them than a more or less elevated temperature, and a greater or less quantity of free gases, have still secured a high position in public estimation. The most remarkable of these—the *indifferent thermal springs*—are the waters of Gastein, of Teplitz, of Wildbad, of Warmbrunn, and of Pfaffers, on the Continent; and those of Clifton Hot Wells, and of Buxton, at home.

Another new chapter—No. XXIII., on the Administration of Medicines—is a most excellent addition to the volume of 1864, and is specially intended for the edification of medical students, who were sadly in want of it, though not more so than many duly qualified practitioners. We must, with all respect for the learned Professor, take exception to his advice concerning the alleged absurdity of writing the directions in a prescription in Latin. We think that for the honour of our profession, if it is to hold its own among the other professions, there should be no pandering to ignorance in any shape. Far better would it be to abolish altogether the writing of any part of a prescription in that system of symbolism, which, by a great stretch of charitable courtesy may be called 'Latin;' than to write one half in abbreviated doggrel, and the other half in English; because, forsooth, *the dispenser is not able to translate it.* Men who take on them to dispense physicians' prescriptions, should be compelled to learn the language of written medicines. At any rate, this should be in Ireland, where the Apothecaries' Company has a monopoly of compounding, and ought to be compelled by the profession to have its monopolized business well done in that respect.

At the conclusion of this chapter, Mr. Macnamara very properly warns the young practitioner against routine prescribing, and shows the evils which are certain to result from neglect of this wholesome advice. There is a very good posological table, and a large and well-selected set of prescriptions in this volume, which is further enriched by the addition of an appendix, consisting of a classification of the chief plants used in medicine, together with the preparations of those which are included in the British Pharmacopœia, arranged according to the natural system. This appendix is the work of Dr. Hewitt, who has herein shown himself to be well qualified to perform the part allotted to him, and whose assistance, in other parts of the book, is fully acknowledged by Professor Macnamara. For the practitioner, we know of no book on this subject at all so useful as this is; for the Dublin medical student it is a *sine quâ non*, and medical students elsewhere cannot get so good a book in the English language, as Macnamara's Pharmacopœia.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 19, 1868.

THE LATE SIR DAVID BREWSTER.

OUR readers will remember how, when the learned President of the British Association for the Advancement of Science was seized with a fainting fit, on the platform, at the last year's meeting, we naturally gave expression to some forebodings lest he should soon be called away from the sphere of his labours. So it has been, and the veteran philosopher's earthly career closed on the 10th inst. We cannot call his death premature, for he had reached the age of 86, and from the earlier years of the century had been known as a careful and accurate man of science. Full of years and full of honour, he leaves a name upon which the historian of science will gladly linger as one of the brightest amongst a brilliant galaxy.

His M.A. degree was taken at Edinburgh, in 1800, and now only BROUGHAM remains of the great men who shed such lustre on the Modern Athens 60 years ago. He had been intended for the Scotch Established Church, but indifferent health, and, doubtless, an insatiable thirst to pry into the secrets of nature, determined him to devote his life to science. He commenced those investigations on light, with which his name has ever since been intimately associated, and in 1807 the University of Aberdeen conferred upon him the degree of LL.D. The next year he was admitted a Fellow of the Royal Society of Edinburgh; but his fame attracted homage also from the south. Cambridge enrolled him M.A.; Oxford made him D.C.L., and other honours were showered upon him. He projected and successfully carried out the "Edinburgh Encyclopædia," which was not completed till 1830. But great as his editorial labours were on this important work, he found time for other contributions to science.

In 1813 appeared his treatise on "New Philosophical Instruments," in which his optical studies were directed to illumination of all kinds, and most particularly to lighthouses. He next sent a paper to the Royal Society of London, "On some Properties of Light," in which he dealt with the phenomena of polarization. Then came another paper "On the Polarization of Light by Reflection." In these he enunciated most important facts, and cleared the way for further investigations. He was elected a Fellow of the Society, and the Copley Medal was awarded to him (1815.)

His name next became more popularly known as the inventor, in 1816, of the Kaleidoscope. Working on in the same field of optics, he received, two years later, the (1818) Rumford Medal of the Royal Society, for his further discoveries respecting polarization. He next seems to take a still higher stand, by adding to his work the conduct of the "Edinburgh Philosophical Journal," which he started, jointly with his friend Professor JAMESON. This he afterwards carried on by himself, as the "Edinburgh Journal of Science." The sixteen volumes that were published, contain numerous articles from his pen. Other medals were awarded him, two by the Royal Society of Edinburgh, of which he was naturally a leading Fellow, being several years Vice-President. In 1825 he became Corresponding Member of the French Institute, and, on the decease of BERZELIUS, in 1849, was promoted to be an Associate of that illustrious body. He published, in 1827, his valuable "Account of a New System of Illumination for Lighthouses," yet for six years his suggestions were not adopted. It was left for Scotland to make a trial of his plan in 1833, when it was found so successful, that from that experiment we may say the history of modern improvement commences. Thus we see, brilliant as had been his career, and with no rival to compete, the advice of the great philosopher in a matter involving life and property was not to be at once

adopted by the red-tape authorities to whom Government is committed. The merits of the learned doctor were, however, not to be disguised, and in 1831, the *honour*—should it be called?—of Knighthood was conferred upon him. In what other country are the services of the first minds of the age *recognised* by throwing them the *lowest* distinction conferred by the crown? Strange, indeed, it is, that the aristocracy of intellect should be suffered for the most part only at a distance, while wealth—well or ill-gotten—should be invited within the charmed circle of the patricians! Little wonder that genius has sometimes scorned the proffered distinction—that poets, philosophers, and patient workers in the world of science, literature, and art, have pushed aside the baubles they were offered to share with mayors, who gave dinners to royalty or courtiers who stood near sovereigns and princes in the capacity of ornamental flunkies. To return to BREWSTER. With one or two others he had planned the British Association, of which the first meeting took place at York in 1831. He continued to be interested in it all along, and was present, as our readers are aware, at the meeting last year at Dundee (see report in numbers of MEDICAL PRESS AND CIRCULAR for August and September).

Sir DAVID BREWSTER was for many years the Principal of the United College at St. Andrews, and as such, some of our readers may possess his autograph upon the diploma of that ancient University. For more than thirty years he lived at St. Andrews, and there pursued his studies. In 1859, he was elected Principal and vice-Chancellor of the sister university of Edinburgh, at which, as we have already stated, he graduated in arts in 1800. Thus, nearly three-score years of toil passed away from the capping of the young M.A., to his installation as Principal of the University where he first studied. Yet almost another decade has gone by before the Nestor of science closes his honourable career.

He has left a grand legacy in his works, but, perhaps, a still grander one in the example of a life-long devotion to work, and the trust of one who spent his life in exploring nature's mysteries, in the goodness and wisdom of nature's God.

We have mentioned several of his writings, and many others are known to scientific men. We will but name one or two more popular works which cannot be omitted even in such a brief notice as this. His treatise on "Natural Magic," will amuse and instruct even young people. So also will his "Life of Newton," which is, however, a more important work, from a scientific and literary point of view.

His "Martyrs of Science" possesses a charm which will never fail, and is a specimen of brief biographical sketches which ought to be read by all. Lastly, we must mention his "More Worlds than one; the Creed of the Philosopher and the Hope of the Christian," in which he enters into the region of metaphysics, and displays a power of debate which those who took an opposite view could not fail to respect. The work was a reply to Dr. Whewell's "Plurality of Worlds," an essay in which the learned Master of Trin. Coll., Cam., denied the possibility of animated beings inhabiting the other planets of the solar system. Sir DAVID BREWSTER took the opposite view, maintained with great power that our knowledge by no means precludes us from thinking that the other fragments of our system may be peopled with intelligent beings, but that their existence was rather to be anticipated, and would only be a natural exercise, so far as we can tell, of the Infinite Power and Wisdom of the Supreme Ruler.

We need scarcely remind our readers that Sir DAVID BREWSTER continued to enjoy his fine intellect to the last, and only very lately used that splendid debating power to expose the fabricated correspondence between PASCAL and NEWTON, which M. CHASLES presented to the Academy of Sciences of Paris last year. Sir DAVID, as we have seen, was Sir ISAAC NEWTON's biographer; he alone of authors had seen the MSS. of NEWTON, which are preserved by the Earl of PORTSMOUTH, and he vindicated in the *Athenæum* and other journals the honour of his great countryman, and completely proved that a gross forgery had been practised. As we commented upon the discussion several times during its progress, it is unnecessary to say more on the subject.

The illustrious philosopher, whose memory we have so feebly commemorated, leaves a son, Lieutenant-Colonel DAVID EDWARD BREWSTER, of the Indian Army, a gentleman now upwards of fifty years of age.

THE SCOTCH UNIVERSITIES AND THE REFORM BILL.

WE briefly alluded last week to the speech of Mr. DUNCAN M'LAREN at Edinburgh, and deprecated the manner in which he attempted to disparage the claims of medical graduates to the franchise. This speech is a direct challenge to these gentlemen, and, in fact, to the whole profession. We had hoped that the day had long since passed by when any one who has had the privilege of putting M.P. to his name should be found ready to heap insult on a learned profession, and argue that its members are unworthy to exercise the political rights afforded to ten-pound householders. Of course, Mr. M'LAREN is profoundly ignorant of the bearings of the whole question. This is obvious, not only from the general tone of his remarks, but from his mis-statements of the facts. Unless he has been very badly reported, he spoke of St. Andrews as a manufactory of doctors, and said something about her turning out 600 in 1862, and then went on to say the majority of these lived in England or Ireland. For a full explanation of this matter we refer to the memorandum to Mr. DISRAELI (p. 162.) As is well-known, at the present time, very few medical men can graduate at St. Andrews under the new regulations, so that the number is actually rapidly decreasing. Under the proposed arrangement of uniting St. Andrews with Edinburgh, we doubt if the Medical Graduates would reach 2000. But, apart from all numbers, will any one say why a Medical Graduate should not have a vote as well as a clerical one? There has, perhaps, never been proposed a more flagrant injustice than would be the exclusion of the Medical Graduates from the franchise. Parliament has assembled, and the Scotch Reform Bill is already engaging attention; and unless the Government is prepared to deal out even-handed justice, it will behove the Medical Profession throughout the three kingdoms to denounce the plot that is being laid, and to bring its influence to bear upon the Legislature. Let it be thoroughly understood that the attempt to deprive the Medical Graduates of the franchise is but an effort to create a petty close constituency that can easily be manipulated, and we may appeal from the existing Government to the Opposition with every prospect of obtaining a hearing. But it is

said the doctors will swamp the non-medical voters. Be it so—what then? Do not the clergy swamp the laity at Oxford, Cambridge, and Dublin? But what would be thought of a plan to deprive all clergymen of their university franchise? Such a proposal would raise an outcry through the length and breadth of the land, and decide the fate of the Ministry that had the hardihood to suggest it. Manifest injustice of this kind will never find favour with Englishmen, and only a frank acknowledgment that they have been misled by interested parties can save those who have charge of the Scotch Reform Bill from well-deserved obliquy.

As for Scotch members, who, like Mr. M'LAREN, do not take the trouble to acquaint themselves with the facts, they should be told very promptly and very decisively by such of their constituents as are interested, that this question, apparently so small, will be made the touchstone of their principles, that unless they vote for justice to the medical graduates every medical man will at the next election use all his influence to prevent their return, and that throwing off the usual lethargy of the profession, every medical man will work hard and canvass all his patients in order to secure his rights. Then there is the Association of St. Andrews Graduates. The members are scattered widely throughout the constituencies, but every one can bring to bear considerable influence on his own member. This individual influence should at once be exercised, besides which the association would, we think, do well to make arrangements for an active campaign.

Let it clearly be understood that even if defeated in this first object, the Association will not dissolve, but will at once set to work to agitate for the repeal of the obnoxious clause, and will organize its forces to bring collective opposition to the return of any member who does not support the right of medical graduates to vote for their university. Action of this kind, if persevered in, cannot fail, and it may well begin with persons who, like Mr. M'LAREN, distort the facts and give way to narrow prejudices against all classes, but the great ten-pounder, who is to be conciliated at all hazards. For our part we would rather trust these newly enfranchised householders for even-handed justice than self-styled "liberals" of Mr. M'LAREN's stamp.

Notes on Current Topics.

The Cantor Lectures.

THE lectures given under this name at the Society of Arts, and of which we are now publishing Dr. Letheby's learned course on "Food," are in commemoration of the late Dr. Cantor, of the East India Company's service, who bequeathed £5000 to the Society. The council devotes yearly a certain sum to lectures called after the successful Indian surgeon. Some of them have been very well attended, and this course of Dr. Letheby's has been so popular that the rooms were crowded to suffocation. No doubt some of this interest arises from the great attention the subject has recently excited among all classes, besides which, the well-known eloquence of the lecturer would be sure to attract an unusually large audience. Finding the immense amount of matter that Dr. Letheby has condensed into his lectures, it affords us great pleasure to be able to give them *in extenso* to our readers, who, we are sure, when they are completed, will find in them an exhaustive and complete treatise on Food. To have condensed into four lectures such a mass of material must have involved long labour, and may well be said to constitute a triumph in the art of lecturing.

Food for the People.

IT will interest some of our readers just now to learn that this subject is treated in an agreeable manner in the current number of the *Contemporary Review*. The article, signed Benjamin Shaw, enumerates the several methods that have been devised to preserve meat in South America and Australia, so as to make it serve as food for our countrymen. It is also very properly pointed out that no process of preserving the meat will make bad meat good, and that attention must, therefore, be given to secure that the animals are killed in fit condition. It has been too common to kill them "off the drift"—that is, immediately after they have been driven from the wilds, and before the excitement and terror of the chase have passed away. This is not the way to get good beef. Butchers at home know the necessity of fattening animals and letting them rest a day or two before they are killed. We trust this point will obtain the attention it deserves. Already, we believe, one or two proprietors are alive to this, and intend to devote their energies to the breeding and fattening of South American beasts with a view of utilizing the meat.

We take this opportunity of mentioning that other articles in this *Review* have afforded us unusual pleasure. We may name, as most within our province, that on the Education of Women and that on the London Press. In the latter, the *Spectator*, the *Guardian*, and the *Nonconformist* are subjected to fair criticism, and their merits pointed out. After this the reader will understand that, though conducted by a Dean of the Church, the liberality of the *Contemporary Review* is as marked as its lofty tone and high principles.

New Words in Medical Reading.

THE letter of Dr. Carey, which appeared in our impression of the 5th inst., calls in other expressions of opinion equally pertinent. It is undeniable that a tendency has been visible lately to use new-fangled words where plain English would suffice. Medical literature has long been notorious for its dry, uninteresting character. For our part we never could see the force of that perpetual outcry against a popular style which is answerable for no small portion of the obscurity that envelopes our annals. Our greatest teachers have adopted a thoroughly popular style, and have not unfrequently employed phraseology, which, if ventured upon by an aspirant in the present day, would infallibly call down upon him the condemnation of those would-be critics whose aim seems to be to make medical writings unintelligible. Look at the lucid lectures of Sir Thomas Watson, and the graphic descriptions of the lamented Graves! Yet who emulates their simplicity of style and expression? We should certainly recommend young authors to follow their example rather than that of the young, and, in one sense, illiterate scribes, who seem to imagine that the art of description consists in writing sentences no one can confute, because no definite meaning is to be extracted from them by the ordinary rules of English grammar.

Representation of the University of London.

THE retirement of Dr. Wood from the contest for the representation of the University of London, reduces the number of candidates now before the members of the University to four; all of whom are avowedly Liberals.

Though Dr. Wood has seen fit to withdraw, and, by so doing, has materially strengthened the already firm position of Mr. Lowe, yet it may not be out of place to remind the more junior members of the University of the essential services rendered by Dr. Wood, in support of their interests many years ago.

In behalf of the Medical Graduates, Dr. Wood was unremitting in his efforts to secure for them those privileges, and that position, to which the severe examinations of the University gave them a most unquestionable claim.

It was Dr. Wood who drew the Medical Graduates' Act, by which the University of London Graduates were placed upon an equality with those of the older Universities, and who took legal charge of this bill in its progress through the House.

Of the numerous deputations that went to the Government on medical business, Dr. Wood was, almost invariably, the leading spokesman. It was Dr. Wood also who had the chief hand in pointing out, and securing a remedy for, the injustice done to the Medical Graduates by the provisions of the Lunacy Regulation and Vaccination Acts —these being so worded, that an M.D. of London was not, by virtue of his degree, able to sign a certificate in lunacy, or of the vaccination of a child.

It is needless to say that all these important points were not gained without much labour and sacrifice of valuable time, and it was gratifying to find that Dr. Wood, together with Dr. Gull, were elected to seats on the senate of the University, being the first of the Graduates who were thus honoured.

From what we have learned, it appears that Dr. Wood yielded to pressing invitation, in allowing his name to be put forth as a candidate for the representation of the University, and obtained, with but little effort, very numerous supporters, so that his withdrawal in favour of Mr. Lowe will tend to secure the return of that experienced and active politician as the member for the London University.

The London Student.

THE prospectus has been issued of a new Monthly Journal under the name of *The London Student*.

The new periodical will devote itself altogether to the subject of education, and collegiate education in London in particular. The prospectus says:—

"*The London Student* will endeavour to reflect the whole educational movement, supplying essays, both theoretical and practical, by practised writers, upon the principal questions, reviews of educational books, and a chronicle of educational occurrences, besides throwing open a wide arena for discussion in the form of correspondence.

"It subject is education in the widest sense, including, besides general cultivation, all the forms of professional education, artistic education, technical and popular education.

"It will place London education in the foreground, and will address itself more particularly to the student-world of London; the colleges and school of which has certain very valuable characteristics—*e. g.* the professional system in full vigour, a great variety of studies, cheapness of instruction, freedom from religious tests, and the advantage inseparable from a metropolitan position, neighbourhood to the largest museums, libraries, and scientific collections.

"Under one disadvantage, however, it as yet labours. The different schools which compose it, being scattered over a large space, have, as a rule, no intercourse with each other, and are not commonly regarded as forming one whole. This want of corporate life leads to many malarrangements, and to much waste of power.

"*The London Student* will endeavour to lead the students of London to look beyond their own special colleges, and to think of themselves as belonging to a vast and splendid university—a university in an especial manner impregnated with the life of the time. It will also contain a chronicle of any occurrences in the London University or College world which London students might desire to hear of, and thus afford them the means of knowing more of each other and of their teachers. The Magazine will be under the editorship of Professor J. R. Seeley, of University College; Dr. Headland, Professor of Materia Medica at Charing-cross Medical College; and J. W. Hales, Esq., late Fellow of Christ's College, Cambridge. The first number will appear at an early date, and will be published by Messrs. Churchill, of 11, New Burlington-street, to whose care communications for the editors may be addressed. Each number will consist of 64 pages, price one shilling.

Typhoid Fever and Poisoned Water.

THE *United Service Gazette* publishes the following extract from the report of the Registrar of the District, in reference to the recent outbreak of fever at the Royal Marine Barracks at Stonehouse:—

"The water which was used by the men from a well adjoining the new wing of the barracks is clear and sparkling, and apparently much better than that supplied by the Devonport water company. In consequence of its being much in requisition, there was a great drain from its source, which, I have every reason to believe, is a very large natural cavern, one of those which are so often found in the limestone formation. This cavern is upwards of 500 ft. in length, and over or on its sides about 30 houses have been built. Persons who do not know of its existence have wondered how it is that their cesspits have not required to be emptied, which, however, is no wonder to me, for I feel convinced that many of the cesspits drain into it. When the foundation was making for the new wing of the barracks, I intimated to the clerk of the works the existence of a large cavern, running N.E. to S.W., and it was ultimately cut into, showing its presence within about 50 feet from the top of this very well. There is also a small burial-ground, not now in use, about 50 feet from the top of this well, and only about 150 yards from it."

Taxation of London Charities.

WE hear that a bill will be introduced into Parliament in the coming session to exempt Charitable Institutions in London from poor-rates. Undoubtedly, such a measure, under judicious restrictions, would deserve and receive considerable attention from the Legislature; but if it is intended to apply, as we believe it is, to all Charitable Institutions, we fear it has not the least chance of being adopted. We venture to say that there are many foundations, *soi-disant* charitable, which neither require nor merit exemption from local taxation. Many such are endowed with enormous incomes, and would find as much difficulty

in getting rid of the money saved as in paying the poor-rates. Others are mere private speculations, and of very doubtful utility, and not, therefore, of a nature to merit exemption. We should, therefore, counsel the promoters of the measure to strike out some plan of selection which may, as far as possible, confine the operation of the proposed bill to the numerous charities whose circumstances really demand such relief. Otherwise, we think the parochial authorities cannot be expected to assent to the measure.

Insalubri v of Cast-iron Stoves.

THE *Gazette Médicale* of February 1st says, that the Paris Academy of Medecine had a debate on this question at their last meeting. Dr. Carret had previously found that when shut up in a room, where a heat of 122 degrees Fahrenheit was thrown off from a cast-iron stove, he had insupportable headache after half an hour, whereas he did not experience this when a stove of fayence or sheet-iron was used. It was also known that iron was permeable to gases. But recently Messrs. Sainte-Clair, Deville, and Troost, analysed the air circulating round cast-iron stoves which were heated to a high degree, and found a large amount of hydrogen and carbonic acid, and by this they were convinced that cast-iron is more permeable to gases than sheet-iron, and more unhealthy.

Charcoal Filters.

FROM the Report of the London and General Water Purifying Company, just issued, it would appear that the public are very negligent respecting the quality of the water they drink; for the system of filtering the water at the moment of drawing, by means of the cistern filter does not spread so rapidly as we have a right to expect. We are glad, however, to learn that the profession appreciates the system. One-seventh of the filters disposed of were to medical men. The Board regret that Government did not invite the Company to tender for supplying the Abyssinian expedition with pocket-filters. At the Broadmead Asylum this system is reported to give satisfaction, all the water, 60,000 gallons per day, being thus filtered. We notice with pleasure that, in spite of the general depression, the company do not any longer re-burn the charcoal after it has been in use some time, doubt having been thrown upon the value of re-burnt charcoal. They now, in all cases, supply new charcoal when the filters are recharged. We have had one of the company's filters in our own cistern for nearly two years, and are so satisfied with it that we hope their use will rapidly extend, and, consequently, that next year the report may close with a more favourable balance-sheet. It seems, however, that only in times of alarm, when some terrible epidemic is raging, do any sanitary measures find favour. How many lives are sacrificed to this apathy which refuses to employ preventive measures!

Anti-Scorbutics.

THE druggists and provision dealers who have been in the enjoyment of the trade in the supply of lime-juice to our merchant shipping, are virtuously indignant at the rejection by the inspectors under the recent Act, of specimens far above the average quality of that hitherto usually supplied to sea-going vessels—a most cogent evidence of the necessity of the provisions of the Act. We trust that the inspecto will rigorously exact the standard set forth by the Government for the quality of this most important requirement, without the slightest regard to the clamour of interested persons.

The Coronership for West Middlesex.

THE canvass which has been so vigorously prosecuted by the candidates is coming to a close. The nomination takes place at Brentford, on this day (Wednesday) and the poll will be taken on Friday next. Three gentlemen, Dr. Hardwicke, Dr. Diplock, and Mr. Walter, are going to a contest and each expresses his confidence of success. Dr. Hardwicke, as the Deputy-Coroner, and Medical Officer of Health for Paddington, is at present the favoured candidate. Dr. Diplock has so urgently pressed his claims on the electors that he is expected, if he should not gain a majority, to receive a very large support; while Mr. Walter, who, under other circumstances would have no chance at all, may possibly profit by the division of the medical interest and step in, while the two more probable candidates are contending for the prize. What a contrast the competition amongst such men affords to the appointment by the Corporation of the City of Dublin to a similar position! In the one instance, gentlemen of talent and zeal contending to be permitted to serve the public, in the other, political and personal jobbery in its most objectionable form.

Variola in the South Midland District.

WE observe by the Quarterly Registration Returns that an excessive proportion of small-pox has manifested itself in the districts adjoining London, in some places amounting to a serious epidemic. At Luton the number of deaths has been 45, at Hertford 20, and a smaller number are recorded as having occurred in Hatfield, Harpenden, Ware, and other localities in the same district. The general prevalence of the disease is not at all such as to cause alarm as to the invasion of the metropolis, but the occurrence of an increased mortality from this cause so close to London ought to put the authorities more on the alert than they have yet been as to the enforcement of the new Act for Compulsory Vaccination.

Emigrant Ships.

WHILE human life is exposed to so many casualties, it is somewhat wonderful, to say the least, that men take no more precautions to avoid them. Much as they value existence, they are too often unaccountably reckless of it, placing themselves in danger, if apparently it answers their purpose to do so, without a moment's thought of the consequences. If an accurate estimate of those deaths which, by ordinary care, might have been avoided, were laid before us, and all circumstances disclosed which led to them, it would undoubtedly strike us with astonishment. A picture of human folly would be presented to us, so strange and unlikely, that we should have great difficulty in believing it to be a true one, and should be disposed to set it aside as a caricature rather than a graphic and honest delineation of the original. We can hardly conceive of a combination of intelligence and thoughtlessness so utterly at variance as is sometimes exhibited in the conduct of men; nor of such an abandonment of themselves to mischievous influence as would almost lead us to suspect the soundness of their mental condition. How often do we hear of the miner exposing his light at the risk of sacrificing himself and others by a fearful explosion; and how often the fact is brought before us, that the dangers

of the sea are nothing to the evils which men bring upon themselves by their carelessness while crossing its treacherous waters.

We have an instance of the latter in the German emigrant ship, *Leibnitz*, which left Hamburg on the 2nd Nov. last, with 544 passengers on board. The vessel might be, for anything we know, perfectly seaworthy, but it was overcrowded to a shameful extent. In the lower part, which ought never to have received a passenger, there was no ventilation whatever, and the air was so foul that lights would not burn in it: yet 150 persons were crowded together here. There were only four closets, and below not one, so that the ship was disgustingly filthy in every part. The rations were scanty and bad, often unfit for food. The drinking-water was given out to each person at the rate of half a-pint a-day. Sickness supervened, and no wonder: but there was little medicine, and no doctor, and consequently the mortality was fearful. No fewer than 105 died during the voyage, and three more when they came into port.

It is matter of simple astonishment that people should venture across the ocean in vessels with such shameful accommodation as this. But so it is, and we must wonder on that people should be so indifferent to their own safety and that of their friends, as to make no inquiries, and avoid dangers which are so imminent. Such things cannot occur on board any of our ships. The Government have interfered for the safety and comfort of the emigrant. There are certain regulations which cannot be neglected by the ship-owner. No more passengers are allowed than there are berths to accommodate. The dietary scale is fixed. A medical man must be carried if more than 300 persons are on board, though for our own parts we see not why 250, or even less, should not be provided with medical advice as well as the higher number. An officer is appointed to visit every vessel which leaves our shores, so that such a state of things as that we have referred to can never occur. We should hope the authorities at Hamburg will awaken before long, and follow the example of other nations in looking well after the condition of their emigrant ships.

Phthisis amongst Foreign Residents in London.

Dr. Bernadet, in his late report to the Societè Francaise de Lecours, remarks on the frequency of tubercular disease in the French residents. This Society is a charity supported principally by the benevolence of Frenchmen, and is devoted to the medical relief of the distressed natives of France. Dr. Bernadet considers that the tendency to tuberculosis is the origin of most of the affections of which Frenchmen die in London.

New Obstetric Journal.

Messrs. Moorhead and Simpson, of New York, are about to issue on the 1st of May, a new "Quarterly Journal of Obstetrics and Diseases of Women and Children," to contain ninety-six pages. It is under the editorial management of Dr. Dawson, assistant to the Professor of Midwifery at the College of Physicians and Surgeons, and Dr. Noeggerath of the German Hospital and Dispensary.—The subscription will be 3 dollars.

To Certifying Surgeons.

A little work has appeared from the press of Messrs. Knight and Co., of Fleet-street, entitled "Hints to Certifying Surgeons under the Factory Acts." It is written by Mr. George Greaves, himself a certifying surgeon, and the consulting Surgeon to the Chorlton Union Hospital, an institution we have long since fully described in our columns. The duties of the persons to whom it is addressed are discussed in their twofold aspects: *First*, as to the qualifications of young persons, by age or otherwise, for work; *second*, as to reporting accidents caused by machinery. Although this little book extends to only 23 pages, the newly appointed certifying surgeon will find it very useful, as the "hints" it offers are of a practical nature, and are very clearly expressed. Reading that a woman has attempted to deceive as to the age of a child, be extracting some of the milk teeth, so as to make it appear that their permanent successors were about to appear, may well make those who have not been initiated into such practice, believe that the "hints" of Mr. Greaves are, some of them, such as will not be anticipated.

Diminution of Small-pox in Ireland.

The Poor-law Commissioners of Ireland have, last week, addressed to the Boards of Guardians a letter referring to the very satisfactory results of the existing system in the stamping out of small-pox, and requesting exact information as to the existence of the disease in any particular locality. The communication is as follows:—

Poor-law Commission Office, Dublin,
6th February, 1868.

Sir,—The Commissioners for administering the laws for relief of the poor in Ireland, desire to inform the Board of Guardians that the rapid diminution of small-pox in Ireland during recent years has, the Commissioners have reason to believe, been accelerated in a most remarkable degree during the year ended on 31st December last.

The returns of deaths by small-pox in the Workhouse Fever Hospitals in that year, compared with those of the year 1864, show only 4 deaths in comparision with 149, or 1-37th part of the number in 1864.

The returns of small-pox cases treated by the Medical Officers of Dispensaries, so far as they have yet been received, are equally satisfactory, 24 cases only having been returned as treated in the half-year ended 30th September, 1867, in comparison with 850 cases in the corresponding half-year of 1864.

It has, therefore, appeared to be very desirable to ascertain, with as much accuracy as possible, all the localities in Ireland in which small-pox is now to be found, in order that in such cases vigorous measures may be taken to complete the suppression of the disease, and prevent its revival as an epidemic.

The Guardians are therefore requested to obtain, through the members of the Board and the Union Officers, especially the Dispensary Officers, exact information as to the existence of the disease in any part of the Union at the present time, either in Dispensary or private practice, and to instruct the Clerk to report to the Commissioners the result of the inquiries which may have been made as soon as practicable, and not later than the 24th of this month.

The stringency of the law now in force to compel parents to have their children vaccinated, and to procure the prosecution of persons inoculating with the small-pox, and thus originating and spreading the disease, has, no doubt, had a material effect in producing this great change; and the Guardians will no doubt feel, in an increased degree, the importance of continuing those exertions which have already, to so great an extent, been attended by success, and which, with the aid of the provisions of the recent Sanitary Acts, may, it is hoped, finally result in the entire suppression of the disease in this country.—By order of the Commissioners,

B. Banks, Chief Clerk.

The very extraordinary diminution in the frequency of this zymotic, from 999 to 28, in the short period of three years, can hardly be calculated on as altogether either a permanent result, or one totally dependent on the existing system, yet, making every allowance for error and chance, the statistics evidence an improvement of a most important character in the public health.

From the annual report of the London Fever Hospital, presented to the meeting on Friday last, it would seem that fever is on the decrease in London. During the last six years 18,152 patients have been admitted, more than half as many as the total since the foundation of the hospital sixty years ago. That total is 32,250. It is time our efforts produced some effect.

We regret to announce the death of Dr. Herapath, the eminent toxicologist, of Bristol, at the age of 72. Dr. Herapath has been prominently concerned in toxicological investigations for nearly half a century.

On Saturday evening the Association of Medical Officers of Health had a discussion respecting Dr. Letheby's views as to the alleged connection of the late epidemic of cholera with the East London water supply. We are sorry that we have no available space for further particulars of the debate this week.

At the last meeting of the Harveian Society, a committee was appointed to investigate the action of drugs. At the next meeting a paper is announced by Mr. W. Adams on Spinal Curvature.

Miss Ettles, of Inverness, has given £1000 to the University of Edinburgh, and its Faculty of Medicine.

The fever at Terling continues; fifteen new cases were announced last week. Dr. Thorne has paid another visit. It is said that a better supply of drinking water has been obtained.

We beg to draw the attention of our readers to the fact, that the Richardson testimonial will shortly close. We have already urged the claims of Dr. Richardson to a handsome recognition, and hope that those who have forgotten to enrol their names will do so before it is too late. The last day (will be seen in our advertising columns) is the 24th of March.

MEDICAL APPOINTMENTS UNDER THE DUBLIN CORPORATION.

When we exposed, in the issue of our Journal for the 13th of November, the perpetration of a job by the Dublin Town Council of the class which has obtained for that body the character for audacious disregard of public opinion, and of even the pretence of propriety in the disposition of their patronage, we hardly expected to have been so soon called on to drag into the light another transaction of a similar, or, if possible, more objectionable nature.

The public papers of Friday last put us in possession of as much information on the matter as is allowed to meet the public eye; but we have a few little facts which may serve as a fitting corollary, and which, in their naked truth, will be, perhaps, more forcible than if garnished with any comment of ours.

It will be learned, on reference to The Medical Press and Circular of the 13th Nov. last, that, in direct opposition to the evident intention of the law, and contempt for justice, the Corporation arrived at the determination that, in future, the medical evidence in coroners' inquests under their jurisdiction should be given by two individuals, instead of being taken from the medical man who might have attended the deceased person, and thereby acquired some information on the cause of death. Probably the Dublin Town Council would have given themselves as little concern on this matter as they do to many other of their public duties; but there were two coroners' sons to be settled in life at the public expense, and these two gentlemen, possessed of no more special qualification in medico-legal investigation than John Doe and Richard Roe, were accordingly appointed medical witnesses for the city of Dublin.

Within the last fortnight the coroner, Dr. Kirwan, died, and the patronage of the office was at the disposal of the Town Council. The anxiety of mind of the dominant party in the Corporation to do credit to themselves, add dignity to the office of judge of inquests, and provide an efficient security for the city of Dublin against deaths from negligence or criminal, intention, it is to be presumed, prevented their giving due attention to the interests of the city, for we learn that the usual meeting on the 6th of February was postponed after a vain delay of an hour and a-half, for want of a sufficient attendance to make a *quorum*, the Town Clerk having most reprehensibly omitted to put on the notice-paper such a financial job or political "scrimmage" as might attract an assembly.

On Thursday last, however, a meeting, such as has not been the wont in the City Hall, assembled for the appointment of a coroner. It had been rumoured that a medical town councillor, whose name had been mentioned, would be elected as a matter of course, but as he had withdrawn his claims on the votes of his fellows, the choice lay between only two gentlemen—Dr. N. C. Whyte and Dr. Butler, of whom, by an enormous majority—almost with the unanimity of the chamber—the former was chosen.

Have the readers of the papers ever inquired who Dr. Whyte is, and what he knows about forensic medicine? May we be permitted to supply the answer?

Dr. N. C. Whyte is a member of the College of Surgeons of England, and has no medical qualification whatever. In 1858 he was one of the medical officers of the 2nd Stafford Militia. Shortly after, he went to Italy as one of the Pope's brigade. On the breaking up of that force he retired into private life, and as his name does not appear in the Medical Directory, and only at the address of "Curragh Camp" in the Medical Register, we have no clue as to the extent of his forensic acquirements, or his qualification for the office of city coroner. A couple of years ago he again appeared on the public stage, not in a medical capacity at all, but as the secretary to the extinct organization then known as the "National Association"—the impersonation of the extremest and most intolerant policy of the ultra-republican party in Ireland—a connection with which would be held anywhere but in the Dublin Corporation as a declaration of war against political moderation, and a disqualification for any public position requiring an unbiassed judgment. The National Association having merged in a condition of insolvency, Dr. N. C. Whyte became a charge on the Corporation, and they have accordingly disposed of him in the judgeship of the Coroner's Court of the City of Dublin.

The only anxiety expressed at all by the members of the Corporation, if we may judge from the published reports, was that the previous job, which placed the coroner's son in the position of medico-legal adviser to the court, should be perpetuated, and in open council a pledge to this effect was demanded from Dr. Whyte. However, not even the broadest hint could extract such a promise from that gentleman, and it is rumoured that the coroner's son, in spite of the dictum of the Corporation, may probably be forestalled by another gentleman of equal medico-legal qualification, but enjoying greater favour with the new coroner.

We could not safely characterise this transaction in the language which we feel that it deserves. It would be an absurdity for us to trouble our readers with an argument to show that Dr. N. C. Whyte is not the best man who could have been selected for such an office; for, if he possesses any qualification which goes, even in a small degree, to mitigat

his complete unsuitability, we are in ignorance of what it may be. We say enough when we express the opinion that, in the long and sore reckoning of their financial, political, religious, and personal jobbery in abuse of the trust reposed in them by the citizens, no more flagrant instance than this has occurred; and in face of the fact that such an act can be perpetrated with the unanimity of the chamber, people who respect themselves are bound to hold aloof from connection with such an assembly.

Correspondence.

"PECULIAR PEOPLE."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I was, I confess, rather amused, and also somewhat indignant, when reading the note on "Peculiar People" in your Current Topics of this week. Really the writer's egotism and dogmatism is marvellous: firstly, he begins with the acknowledged right of a British subject to make a "fool" of himself, if it so please him; and then, quietly mounts his own peculiar hobbies, ego and dogma, and comments upon that right. Whilst on the former, he dares to indulge in judgment upon the peculiar (it may be) views of individuals, as regards their relation to an Almighty Power, and speaks in terms of approbation of a "prosecution for manslaughter" of persons who allowed (he says) their child to die, because they believed in "no curative power of man," but in the direct interposition of the Almighty. How does *he* know that man's remedies would have saved the child? How dare *he* say what the jury declined saying when they "acquitted" the case, viz,—that the child need not have died, and the parents' neglect killed it? Was the mother's loving, tender, untiring, and ceaseless fortnight's attendance, night and day, neglect? Was the father's spare moments, spent in prayer for, or attendance on, his child, neglect? Verily there *is* "liberty in Great Britain" with a vengeance, when a man's private religious belief is to be hauled over, and subjected to the scrutiny of any stranger, who has impertinence enough to meddle with it. Though I certainly should not have employed the means they used for the recovery of a child of mine, were it ill, yet, I would have used *no* means *without* the prayers of myself, and, if it so pleased me, of elders, deacons, ministers, clergymen, priest, or any whom I thought were godly, for I read "the prayer of a righteous man availeth much," and if my hobby, or my faith, lead me to put trust in the direct interposition of the Almighty, to be gained by prayer, "yet for this will I be inquired of," I do not think, Mr. Editor, I have a right to be laughed at for my trust and confidence in Him, "without whom we are powerless, either with, or not with, human help and aid." Again, he mounts hobby No. 2, and makes an assertion, which is untenable—namely, that the "disbelief in human aid would not in the slightest degree protect them from the just punishment of neglecting the proper means to save life." How is this? Do we not often hear of persons whose disbelief in human remedies causes death? The abstainer, for instance, for whom the doctor has ordered stimulants; those who do not undergo surgical operations when told 'tis the only hope of saving life; those who are told intoxicating drinks are poison, yet, going on quaffing them greedily. No! no! your writer had better dismount dogma: no law can punish me for not drinking a quart of any mixture, if I do not approve its maximum, any more than it can compel me to swallow a grain, if I have no faith in its minimum; neither can it punish my survivors for neglect of recommended means. It could interfere if I starved a child, or in case of broken limb, or such casuality, the proper means were neglected; if in infectious disease I allowed it to spread by intercourse with my fellows, &c., but whilst I, or any of the "peculiar people," break no law, but act conscientiously, and as *we* think rightly, in the sight of God and man, please Mr. Editor to allow us to be at peace, or, at least, do not have us held up for ridicule in your valuable, and far spread journal.—I am, sir, yours, &c.,

M. LIPTRATE.

London, February 5th, 1868.

[THE only two points which our correspondent makes against us are weak, simply because they are misrepresentations both of our opinions and our words. We did not say, though we have our own opinion, founded on the medical evidence, "that the child need not have died, and that the parents neglect killed it." On the contrary, we specifically declared that it was for want of proof of this that the parents were acquitted, and not because they were protected by their plea of religious peculiarity. *Secondly*, We took care to point that the privilege of every man to exercise the delusions with which he may be possessed is confined to his own person. He has a perfect right to imperil his own life, health, or comfort, by his fanaticism, but he is not entitled to injure others, and especially those whose tender age prevents their choosing for themselves. Every parent is intrusted with the care of his child, not to afford him an occasion for the exercise of his own narrow ideas, but in the expectation that no protection which circumstances afford will be neglected.—ED. M. P. & C.]

THE ABUSE OF GRATUITOUS MEDICAL AND SURGICAL ADVICE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I do not remember seeing noticed in your journal an abuse which really ought not to be permitted to exist any longer. I allude to the practice of well-dressed, apparently well-to-do females, taking advantage of the freedom offered them of applying to our many hospitals and dispensaries for gratuitous medical and surgical advice.

No wonder many of us are complaining of the badness of the times, when the staffs of those institutions encourage such visitants by their especial obsequiousness *to them*, in contradistinction to the necessitous poor! This is too truly a fact, as I have been compelled to hear, and can instance cases of the kind not a few.

Surely a little discernment and distinction should be made between the two classes of people, and they of the "better class" should be informed of the intention of those institutions, or if they persist in going, should be made to contribute something substantial for the benefit of their poorer brethren and in aid of the funds of needy hospitals and dispensaries.

I need not say more on the present occasion. I would simply direct attention to this positive evil, in the hope that some alteration may be made, that our noble institutions may not continue to be perverted from their original intentions and the intentions of their present liberal donors and supporters.

By giving insertion to this short letter in your valuable paper, you will greatly oblige

"ONE WHO HAS CAUSE TO COMPLAIN."

DR. LETHEBY'S LECTURE ON FOOD.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Will you allow me to call the attention of your readers to the following inconsistency in Dr. Letheby's interesting lecture on food, contained in your number of the 29th ultimo. Dr. Letheby truly states in the course of that lecture that "primarily all our foods are derived from the vegetable kingdom, for *no animal* has the physiological power of associating *mineral elements*, and *forming them* into *food*." Now, this is thoroughly sound physiology, and at once shows the absurdity of the customary prescriptions of iron, phosphates, and other salts of lime, &c., as "blood food"—prescriptions which are based on ignorance or forgetfulness of all sound physiology, inasmuch as they cannot, in their mineral condition, be assimilated by the system, which, on the contrary, does its best to eject them the moment they are presented to it.

Now, the inconsistency which I wish to refer to in Dr. Letheby's lecture is his sanctioning the addition of salt or muriate of soda to bread after previously stating that the system is incapable of assimilating it. This being the case, it is a poison, incapable of affording nutriment to the animal economy, and therefore injurious to it. It is these illogical inconsistencies, and ignorance or neglect of sound physiological principles, which lead to the present unsatisfactory state of the medical art, poisons being prescribed for food.—Your obedient servant,

RICHARD GRIFFITH, Ch.M.

[THE mineral substances play the part of purveyors, and are therefore very useful—in fact, in not a few instances they are necessary. To call them poisons "incapable of affording nutriment to the animal economy, and therefore injurious to it," is a strange proceeding on the part of one attempting to correct such an authority as Dr. Letheby. What will the teetotallers say to Mr. Griffith's proposition, which necessarily includes

water? Our correspondent should not impute "ignorance" or "neglect of sound physiological principles," or "inconsistencies," to writers he has evidently failed to comprehend.—ED. M. P. & C.]

RICHARDSON'S ETHER SPRAY APPARATUS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having recently procured Richardson's ether spray apparatus, I would feel thankful to one of your readers for a detailed description of its application. Several years' absence from the country, under circumstances in which it was impossible for me to be acquainted with this discovery, will account for my ignorance in this regard. Perhaps you or some kind contributor would be good enough to direct me to where I could obtain this information *in extenso*.—I am, &c.,

A COUNTRY DOCTOR.

[OUR correspondent will find very full descriptions in the back numbers of our own and other journals for the past two years. A complete work on the subject by Dr. Richardson is in hand, and would have been completed before this time but for the demands made upon his leisure by the course of lectures now being delivered on experimental and practical medicine, with which our readers are familiar. The book will now be published, however, at an early date. It is the custom of most instrument-makers to send a series of short rules with the instrument.—ED. M. P. & C.]

SUPPRESSION OF SMALL-POX BY ISOLATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In THE MEDICAL PRESS AND CIRCULAR for February 5, are some notes on Sir J. Simpson's proposal to stamp out small-pox and other contagious diseases by *isolation* of those affected.

I should like to be allowed to draw attention to the very great success that has attended such a plan of preventing the spread of small-pox in the village of Burton-on-the-Water in Gloucestershire.

Mr. Moore, the surgeon of this village, well-known as the instituter of one of the very first of the village hospitals, and also as the discoverer of the familiar "Moore's Test" for diabetic sugar, has been good enough to furnish me with a few notes respecting sundry outbreaks of small-pox in his district. They are as follows :—

On six different occasions has small-pox been imported into the village (which comprises over 1000 inhabitants), and on all these occasions, by strict isolation of the infected families, the disease has been entirely restricted to the house in which it originated, and has never spread to other houses.

In one case the disease appeared in a family of twelve persons; all were vaccinated, and, with the exception of one servant, who got the disease in a very mild form, there was no extension to other members of the family.

In other neighbouring parishes, when this method of strict isolation of the sick, and those in immediate attendance upon them, has been carried out, similar fortunate results have followed. In some places where all these precautionary measures were set quite at defiance, most severe outbreaks of small-pox were witnessed.

I have ventured to send these few simple facts to THE MEDICAL PRESS AND CIRCULAR, as this subject of isolation in cases of small-pox, appears now to occupy some attention, and in the hope that medical practitioners will be induced to enforce a rigid seclusion of those who are sick, and who are in contact with the sick, from intercourse with their neighbours, for thus much danger, anxiety, and trouble may be averted from a community.

It is pleasing to find that in Gloucestershire, Jenner's own county, the Medical Profession is disposed actively to suppress anything like an outbreak of small-pox.—I am, sir, obediently yours,

JOHN C. THOROWGOOD, M.D.

February 12, 1868.

Medical News.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The lectures for this year have been announced and the tickets distributed. The Gulstonian are to be on March 4th, 6th, and 11th, by Dr. John Harley, whose subject is the "Physiological Actions and Therapeutical Uses of Conium Belladonna, and Hyoscyamus; alone and in combination with opium." The Croonian lectures are to be March 13th, 18th, and 20th, by Dr. Bence Jones, and the subject, "Matter and Force." The Lumleian lectures will be on March 25th, 27th, and April 1st, by Dr. Guy. His subject is the "Factors of the Unsound Mind; with special reference to the plea of insanity in criminal cases." The lectures are delivered at the college at five o'clock P.M. We are also informed that an additional lecture will probably be delivered this year by Dr. Wilson Fox on "Tubercle."

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the quarterly examination held on the 11th, 12th, and 13th instants, the following gentlemen passed the first half of their examination for the letters testimonial, viz.:—Joseph Backhouse, Joseph Beatty, Richard D. Bennett, Patrick J. Bodkin, Benjamin F. Bradshaw, William Budd, John Carson, John Clancy, John J. Crean, Richard Creed, Joseph P. Doyle, Edward Fawcett, George Gloag, Frederick Hasler, John Kernan, Francis H. Lyon, George J. Mackesy, William Morrison, James Marsh, Eugene Nolan, Frederick S. Price, George H. Torrance, James F. Walker, Albert J. Watson, and Richard J. Wheeler.

TEMPERATURE OF 1867.—Mr. Glaisher reports that the mean temperature of the air in the three winter months, ending February, 1867, registered at the Royal Observatory, Greenwich, was 40·6 deg., being 1·4 above the average of the preceding 26 years; in the three spring months, ending May, 46·7 deg., being 0·4 below the average; in the three summer months, ending August, 59·8 deg., being 0·8 below the average; in the three autumn months, ending November, 49·2 deg., being 1·3 lower than the average; in December, 1867, 37·5 deg., being 1·6 lower than the average of 96 years. The highest temperature registered in 1867 in the 56 stations from which Mr. Glaisher has returns was 91·2 deg. at Royston, Herts, in August; the lowest was 0·0, at Lampeter, Cardiganshire, and also at Norton-in-Hales, Shropshire, in January, 1867.

NOTICES TO CORRESPONDENTS.

Proofs reaching authors in England on or before Friday morning, are expected to be returned to the Editor, at the office, 20, King William-street, Strand, W.C., before five P.M., on Friday afternoon. Proofs reaching authors on Friday evening or Saturday morning *must* be returned to the office by two P.M. on Saturday, which is an early closing day. Duplicate proofs are sent to authors, in order that they may correct and return one copy, and keep the other for private use. Contributions should be LEGIBLY written, on one side of the paper *only*.

All Communications and Letters must be authenticated by the name of the writer, though not necessarily for publication.

We are gratified to acknowledge a number of encouraging letters from old as well as from some of our new subscribers. Steady support like that we have lately received is most satisfactory, and spurs us to renewed vigilance in the interests of the Profession. The best thanks are offered for this, as well as for the still greater assistance some have afforded, by obtaining for us new subscribers. It is impossible to find space for remarks from all. The gentleman who has obtained six new subscribers will accept our warmest thanks. Those who have obtained a smaller number have no doubt been equally pleased with our endeavours. We hope each of our friends will see cause to assist us in the same way.

Dr. BLACK.—Enclosure received. We are glad you can commend our paper for the "terseness of its articles, and the independent spirit it maintains."

J. B.—The copies have been sent. It is very complimentary to pronounce our paper "indispensable." The article will appear in three weeks.

Mr. HIND.—We would willingly publish the case.

F.R.C.S.—The hospital is most respectably conducted. The fear of its specialty lowering your status is unfounded. The crusade against specialism is most ridiculous, and must fail.

J. BLAKE.—You can get them through any bookseller. If a long distance from one, Messrs. Churchill would probably send them by post on receipt of stamps.

HY. GROOM.—The book was published a year or more ago by Messrs. Longmans and Co.

Dr. COCKLE.—The figures are in the hands of the engraver.

Dr. CLARK, Staines.—A perusal of "The Letter of Advice" mentioned by you might be useful to us. Will you kindly forward it?

S. P. S., London.—We shall use the information placed at our disposal consistent with our position, in order to arrive at an incontrovertible conclusion, and will acquaint with the result.

Dr. EDMUNDS.—Your communication to hand; too late for this week's issue; will appear in our next.

Dr. WALTER SMITH.—Your paper on "Case of General Paralysis Subsequent to Cholera," shall appear in our next.

Dr. CHAPMAN.—Packet received. Proofs will be sent as soon as possible.

Mr. J. BAXTER LANGLEY.—"The End of an Impostor" shall appear in our next.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 26, 1868.

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Lectures.

THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S SECOND LECTURE ON FOOD.

COMPARATIVE DIGESTIBILITY OF FOODS—FUNCTIONS OF DIFFERENT FOODS.

(Continued from page 153.)

Nitrogenous or *proteinaceous*, or *albuminous substances*, which constitute the leading articles of diet, are evidently digested by the gastric juice and the intestinal mucus. In the former case they are converted into acid peptones, of which, according to Lehmann, there are several varieties, as *albumino-peptones*, *fribrino-peptones*, *caseino-peptones*, *gelatino-peptones*, &c., according as they are derived from albumen, fibrin, casein, gelatin, &c., and of these substances the fluid form of albumen is most easily converted; then coagulated albumen; then fibrin; then casein; and, lastly, the derivatives of albumen, gelatin, chondrin, and cartilage. The tegumentary forms of albumen, as hair, wool, feathers, &c., being entirely indigestible. Here is an example of the indigestibility of hair—it is a ball of it obtained from the alimentary canal of a cow, and has come from the calf which the cow has a habit of licking. Serpents and other animals that swallow their prey entire, digest the soft tissues and bones, but they disgorge the hair and feathers untouched.

It is difficult to speak of the comparative digestibility of different nitrogenous foods. The well-known experiments of Dr. Beaumont, on the Canadian with a fistulous opening in the stomach, and even experiments made in bottles with pepsin, do not represent the full and natural conditions of the process present, but that there are great differences in the digestibility of different animal substances, there can be no doubt. Dr. Beaumout found, in his inquiries, that soused pigs feet and soused tripe were the most digestible of all foods, and that boiled tendon of meat was the least. The following, in fact, are the times given by him for the chymification of different animal foods :—

Articles of Diet.	How Cooked.	Time of Chymification. H.	M.
Pigs feet (soused) ...	Boiled ...	1	0
Tripe (soused) ...	Do.	1	0
Eggs (whipped) ...	Raw ...	1	30
Salmon trout ...	Boiled ...	1	30
Venison steak ...	Broiled ...	1	30
Brains	Boiled ...	1	45
Ox liver	Broiled ...	2	0
Codfish (cured dry) ...	Boiled ...	2	0
Eggs	Roasted ...	2	15
Turkey	Boiled ...	2	25
Gelatine	Do.	2	30
Goose	Roasted ...	2	30
Pig (sucking) ...	Do.	2	30
Lamb	Broiled ...	2	30
Chicken	Fricasseed ...	2	45
Beef	Boiled ...	2	45
Do.	Roasted ...	3	0
Mutton	Boiled ...	3	0
Do.	Roasted ...	3	15
Oysters	Stewed ...	3	30
Cheese	Raw	3	30
Eggs	Hard boiled ...	3	30
Do.	Fried ...	3	30
Beef	Do.	4	0
Fowls	Boiled ...	4	0
Do.	Roasted ...	4	0
Ducks	Do.	4	0
Cartilage	Boiled ...	4	15
Pork	Roasted ...	5	15
Tendon	Boiled ...	5	30

It is doubtful, in fact, if cheese or tendons are ever digested except in small quantity; and it is evident, from these experiments, as I shall hereafter explain, that cooking has considerable influence on the digestibility of substances.

It is a curious problem why the stomach does not digest itself, seeing that it belongs to the class of most easily digestible substances, as tripe. Hunter explained it by referring the protective power to the vital force, for when dead the stomach digests itself in common with the food contained in it; but Bernard's and Pavy's experiments have proved that this is not the right explanation, for if the legs of living frogs, or the ears of living rabbits, are introduced into the stomach of a dog through a fistulous opening in the side, they digest like other proteinaceous substances. Liebig supposed that the protective power was in the thick mucus which lined the stomach, but Pavy denuded a part of the inner walls of a dog's stomach, and found that the tissue did not digest, but, on the contrary,

quickly healed, and he is of opinion that the protective power is, in the alkaline condition of the blood, which circulates so freely through the capillaries vessels of the stomach during digestion.

Starchy substances, and *cellulose*, are digested by the ptyalin of the saliva, and the pancreatin of the pancreatic fluid, as also by the animal diastase of intestinal mucus. The solution is effected by the conversion of the starch and cellulose into a low form of sugar called *glucose*, which is freely absorbed into the circulation, or becomes changed into lactic acid, that serves so important a function in the digestion of nitrogenous matter. The time necessary for the digestion of different vegetable substances, as determined by Dr. Beaumont, is as follows :—

Articles of Diet.	How Prepared.	Time of Chymification. H.	M.
Rice	Boiled ...	1	0
Apples (sweet and mellow)	Raw ...	1	30
Sago	Boiled ...	1	45
Tapioca	Do.	2	0
Barley	Do.	2	0
Apples (sour and mellow)	Raw ...	2	0
Cabbage with vinegar	Do.	2	0
Beans	Boiled ...	2	30
Sponge Cake ...	Baked ...	2	30
Parsnips	Boiled ...	2	30
Potatoes	Roasted ...	2	30
Do.	Baked ...	2	33
Apple Dumpling ...	Boiled ...	3	0
Indian Corn Cake ...	Baked ...	3	0
Do. do. Bread ...	Do.	3	15
Carrot	Boiled ...	3	15
Wheaten Bread ...	Baked ...	3	30
Potatoes	Boiled ...	3	30
Turnips	Do.	3	30
Beets	Do.	3	45
Cabbage	Do.	4	0

It would be seen from this that the time of digestion is in proportion to the amount of cellulose or woody tissue in the food. No doubt there is a more complete solution of these matters in the small intestines, where the pancreatic fluid and intestinal mucus, aided by the alkaline condition of the fluids, exert the greatest actions on them, but it is very doubtful whether hard cellulose and woody matter are at all digested by man. Even in the case of the pig, whose digestive powers are singularly active, it is thought by Messrs. Lawes and Gilbert, from their experiments on the fattening of animals, that there is little or no digestion of these substances ; and, under any circumstances, a very prolonged contact with the secretions is necessary for their digestion. Raw starch will pass a considerable distance along the alimentary canal of man without much change, and it is only towards the end of the small intestines that the starch granules undergo marked disintegration. Those animals which feed entirely on vegetables have always a contrivance for keeping the food for a long time in contact with the secretions. It occurs as the paunch in ruminants, the crop in birds, the large cœcum in rabbits and other rodentia, and as the long alimentary canal of all of them ; but even then a large portion of the vegetable tissue passes through the bowels unchanged. Cooking, grinding, and otherwise disintegrating the tissue, helps considerably in the digestion of it.

Gum and *pectin* are probably not digested at all, for as they are unchanged by contact with the secretions, and are incapable of dialysis or absorption, they must pass through the alimentary canal without serving any purpose in nutrition.

Fatty matters are digested by the emulsifying action of the pancreatic fluid ; and by being thus broken up into extremely minute globules they are freely admitted into the lacteal vessels ; in fact, the emulsified globules of fat are seen covering the villi of the intestines, penetrating their tissues, pervading the subjacent cellular bodies, and thus entering the lacteals ; and, no doubt, the paristaltic action of the intestines contributes largely to this emulsifying process.

Saline substances are generally soluble in w: ter and are therefore easily absorbed, but when this is n t the case, as with the earthy phosphates, they are atta ked by the acid constituents of the gastric juice.

And here I may remark that the great aids o digestion are :—

1st. Proper selection of food, according to t e taste and digestive power of the individual.

2nd. Proper treatment of it as regards cook ng, flavouring and serving it.

3rd. Proper variations of it, both to its nature and treatment, so that the appetite may not fail.

4th. Exercise, warmth, and a genial disposit on.

Although much attention has been directed to the important subject of the immediate and remote functions of food, yet it must be admitted that the difficulties of the question have not been surmounted, and that we are hardly able to particularise the phenomena which a e incidental to its transformations. We can see clearly enough that its ultimate destiny is the manifestation of for e—the letting loose of the cosmical agencies which were bound up in it—when, by undergoing oxydation, it returns more or less completely to its original forms—carbonic acid, water, and ammonia ; but how and where these change occur, and what are the subsidiary phenomena, and concurrent functions, besides those of common motion and animal heat, are as yet almost unknown to us. Nor are we sufficiently acquainted with the special attributes of the principal constituents of food, as the albuminous, the fatty, the farinaceous, the saccharine, and the saline ; for although the well-known opinions of Liebig, with regard to the dynamic or force-producing functions of the nitrogenous or plastic elements of food, and of the thermotic or respiratory powers of the carbonaceous have been generally received, yet there are abundant reasons for believing that both of these classes of food may perform exactly the same functions in respect of the development of force ; and, again, it is more than probable that the nitrogenous, or plastic constituents of food may, like the carbonaceous, be oxydised and consumed in the living body, without ever entering into the composition of tissue. In these respects, therefore, there are great points of divergence from the views of Liebig.

Looking, however, at the proximate elements of food, it may, perhaps, best serve our present purpose if we enquire generally into the several functions of water, albuminoid compounds, fatty substances, farinaceous and saccharine matters, and mineral salts.

1st. *Water* is, unquestionably, of great physiological value, for as much as 75 per cent. of the muscular tissue of the animal frame is composed of it; and of the 20 lbs. of blood which an average sized adult contains in his body, about 15½ lbs. are water. It is computed, also, that not less than 30 lbs. of fluid ebb and flow daily from the blood and alimentary canal by secretion and absorption. Bidder, indeed, estimates that about 28·6 lbs. of chyle and lymph are carried daily by the thoracic duct alone into the circulation—a quantity of fluid that amounts to about one-fifth of the entire weight of the adult human body ; and, then, with regard to the excretions, we find that rather more than a pound of water is exhaled daily by the breath, about a pound and three-quarters by the skin, and not less than two pounds and three-quarters by the kidneys, making altogether about five pounds and a-half per adult daily.

These results indicate the importance of water in the functions of the animal body. It serves indeed to dissolve the food and carry it into the circulation; to effect the distribution of it throughout the system ; to dissolve effete matters, as the metamorphosed constituents of worn-out tissues, and convey them out of the body; to establish the chemical activity which is necessary for nutrition and decay; to combine mechanically with the tissues and lubricate them, so that they may perform their functions; and lastly, to evaporate by the air-passages and skin, and thus maintain the proper temperature of the body.

2nd. The second constituents of our food—namely, *albuminous, nitrogenous*, or *plastic matters*, were once, and until very recently, thought to have the sole function of constructing and repairing the muscular parts of the body; and having so entered into the composition of tissues, their oxydation and decay were attended with manifestations of force which were the working powers of the animal machine. "We see," says Liebig, "as an immediate effect of the manifestation of mechanical force, that a part of the muscular substance loses its vital properties,—its character of life; that this portion separates from the living part, and loses its capacity for growth and its power of resistance. We find that this change of properties is accompanied by the entrance of a foreign body (oxygen) into the composition of the muscular fibre; and all experience proves, that this conversion of living muscular fibre into compounds destitute of vitality, is accelerated or retarded according to the amount of force employed to produce motion. Nay, it may safely be affirmed, that they are mutually proportional; that a rapid transformation of muscular fibre, or, as it may be called, a rapid change of matter, determines a greater amount of mechanical force; and conversely, that a greater amount of mechanical motion (of mechanical force expended in motion), determines a more rapid change of matter." He further remarks that "the amount of azotized food necessary to restore the equilibrium between waste and supply is directly proportional to the amount of tissue metamorphosed," that "the amount of living matter, which in the body loses the condition of life, is, in equal temperatures, directly proportional to the mechanical effects produced in a given time." That "the amount of tissue metamorphosed in a given time may be measured by the quantity of nitrogen in the urine"; and "that the sum of the mechanical effects produced in two individuals in the same temperature, is proportional to the amount of nitrogen in their urine; whether the mechanical force has been employed in voluntary or involuntary motions; whether it has been consumed by the limbs, or by the heart and other viscera."

These are the generalizations of Liebig, and they go to show, not only that the dynamical action of the animal body depends wholly on the transformation of muscular tissue, and may be measured by the quantity of nitrogen excreted as urea; but also that no oxydation of nitrogenous matter can take place until it has passed from the condition of food to tissue, and has thus become organized. According to this view, the mechanical force of the human machine is derived entirely from its own combustion, and not from the oxydation of matters contained in the food.

For some time past there have been suspicions that this view of the case is not correct; and the doubts of physiologists have been strengthened by the circumstance that great labour might be performed for a short period without the use of a nitrogenous diet; and that while there was always a relation between the quantity of nitrogen in the food, and that excreted as urea, there was no such relation between the dynamical actions of the body and the proportions of urea. Moritz Troube, in fact, asserted in 1861, after a careful examination of the subject, that all muscular force was derived from the oxydation of fat and hydrocarbons, and none from the oxydations of tissue. Haidenham, in 1864, arrived at a similar conclusion; and Donders was likewise of opinion that tissue transformation would not account for all the force of the animal body.

The hypothesis of Liebig has been further shaken by the investigations of Dr. Edward Smith, who has shown that the proportions of nitrogen in the urine does not increase with exercise, although the amount of carbonic acid exhaled by the lungs does. But the most convincing proof of the fallacy of the hypothesis was furnished in 1866 by the experiments of Dr. A. Fick, the Professor of Physiology at Zurich, and Dr. J. Wislicenus, the Professor of Chemistry.

On the 29th of August of that year they prepared themselves for an ascent of the Faulhorn, one of the Bernese Alps, which rises 6417 feet above the Lake of Brientz. For seventeen hours before the journey, they took nothing in the way of solid food but cakes composed of starch, fat, and sugar; and on the following morning, at half-past five o'clock, they began the ascent, choosing the steepest of the practicable paths from the little village of Iseltwald on the Lake of Brientz. At twenty minutes past one in the afternoon their journey was accomplished without fatigue, and from that hour to seven in the evening they remained at rest in the hotel at the top of the mountain. During the whole of that time (a period of thirty-one hours) they took no other food but the non-nitrogenous biscuits; but at seven o'clock they had a plentiful meal of meat, &c.

The urine was collected at three intervals, namely :—

1st. From 6 o'clock P.M. of the 29th to 5 A.M. of the 30th; and this they called the *night urine.*

2nd. From 5 A.M. of the 30th to 1.20 P.M.; and this they called the *work urine.*

3rd. From 1.20 P.M. to 7 P.M.; and this they called the *after-work urine.*

4th. From 7 P.M. on the 30th to the morning of the 31st; and this they called the *night urine.*

All these were analysed for nitrogen, and the results were as follows :—

	Grains of Nitrogen Secreted by Fick.		Wislicenus.	
1st. Night urine ...	106·7		103·1	
2nd. Work urine ...	51·1	88·6	48·3	85·6
3rd. After work urine ...	37·5		37·3	
4th. Night urine ...	74·3		82·5	

So that not only were they able to perform the work without a nitrogenous diet, but the quantity of nitrogen excreted was less during the work, than before or after. Even calculated at the hourly rate of excretion, it stands thus :—

	Grains of Nitrogen Hourly excreted. Fick.	Wislicenus.
During 1st night ...	9·72	9·41
During time of work ...	6·33	6·02
During rest after work ...	6·17	6·17
During 2nd night after work	6·94	7·87

The work which they had performed was estimated thus :—Fick weighed 145·5 lbs. avoirdupois, and Wislicenus 167·5 lbs.; and as they had ascended 6417·5 feet, it is clear that Fick had raised 933,746lbs. one foot high (145·5 × 6417·5), and Wislicenus 1,074,931lbs. (167·5 × 6417·5); so that for an expenditure of muscular tissue, represented in the one case by 88·6 grains of nitrogen, and in the other by 85·6 grains, the foregoing amounts of work had been done. Now, as 1 of nitrogen represents 6·4 of dry muscular tissue, it is evident that Fick had consumed 567 grains of muscle, and Wislicenus 547·8 grains.

At the time of the experiment, the thermotic and mechanical powers of these proportions of flesh were not accurately known, but they have been since determined in a very careful manner by Dr. Frankland, who finds that when pure dry lean of beef, albumen, and urea are completely oxydised in a proper apparatus, they develop the following amounts of heat and mechanical force :—

	Lbs. of water raised 1° Faht.	Lbs. lifted one foot high.
10 grains of pure dry beef ...	13·1	10,083
" " " albumen ...	12·8	9,878
" " " urea ...	0·6	436

In considering the mechanical power of muscular tissue, it must be remembered that it is never completely oxydised in the animal body, but is changed into carbonic acid, water, and about one-third of its weight of urea, so that the potential energy of muscle is not so great as in the preceding results. Calculated, indeed, according to the proportions of urea formed, the tissues of Fick and Wislicenus were capable of the following amount of physiological energy :—

	Fick.	Wislicenus.
Quantity of muscle consumed,	567·0 grs.	547·8 grs.
Actual energy if fully burnt,	571,706 ft.-lbs.	552,347 ft.-lbs.
Available energy, deducting the urea,	563,466 ft.-lbs.	544,386 ft.-lbs.
Work actually done, ...	933,746 ft.-lbs.	1,074,931 ft.-lbs.

So that, in the case of Fick, 370,280 foot-pounds of work, and, in the other, 530,545 foot-pounds are unaccounted for. But this is not all, for, besides the mere labour of ascending the mountain, there were the movements of respiration, and the beating of the heart, and other motor actions, to be added to the work actually done.

Now each beat of the heart is estimated as equal to a lift of 4·61lbs. one foot high ; and it is considered from Donder's well-known investigations that the work of an inspiration is nearly the same—namely, 4·54lbs. a foot high. Fick says that during the ascent his pulse beat at the average rate of 120 a minute, and his respirations were 25. The beating of his heart, therefore, during the 5½ hours actually taken in the ascent was equal to 182,556 lbs. lifted a foot high ; and the respiration to 37,455 lbs. If the internal labour, or, as it may be called, the *opus vitale* of Wislicenus was in proportion to his bodily weight, as compared with Fick's—that is, as 7 to 6, then the ascertainable work done, was to the power of the muscle consumed as follows :—

	Fick.	Wislicenus.
Work of ascending the mountain,	933,746 ft-lbs.	1,074,931 ft.-lbs.
Work of circulation, ...	182,556 „	212,982 „
Work of respiration, ...	37,455 „	43,698 „
Total ascertainable work,	1,153,757 „	1,331,611 „
Actual energy of the consumed muscle,	563,466 „	544,386 „
Energy unaccounted for,	590,291 „	787,225 „

From which it appears that taking only the three factors of ascertainable work—namely, external labour, circulation and respiration, and disregarding other unascertainable motor actions of the body, which are estimated by many as greater than all the rest, the work actually performed exceeds the energy of the oxydized muscle by more than as much again.

(To be continued.)

LECTURES ON VENEREAL DISEASES

DELIVERED IN

DR. STEEVENS' HOSPITAL.

LECTURE II.

By ROBERT McDONNELL, M.D., F.R.S.,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

(Continued from page 154.)

RICORD'S division is anatomico-chronological. He takes into account not only the time at which certain symptoms appear, but likewise considerations furnished by the state and physiological relation of the local affections. He holds—although in this respect his opinions are of late somewhat modified—"that the primary affection alone is contagious ; that the secondary symptoms are not contagious but hereditary," and lastly, "that the tertiary symptoms are neither contagious nor hereditary, but that they predispose to scrofula."

German authorities do not adopt the classification of Ricord. Bäerensprung, of Berlin, looks at the question in an anatomico-pathological point of view. He admits syphilis to have a period of hyperæmia and a period of tubercle. Secondary syphilis, according to him, manifests itself by inflammations, limited to the superficial layer of the corium (macula and scales), and hypertrophy, more or less considerable, of the papilla; papulæ and condylomata, and ulcerations, having a condylomatous character. Affections of the iris, the testicle, the liver, the bones, ulcerations which destroy the tissues deeply, are ranged by him among the tertiary symptoms. Sigmund, of Vienna, adopts a division purely chronological. Virchow, as a pathological anatomist, classes the symptoms of constitutional syphilis into two groups. One of these has a passive or negative character—marasmus, visceral degenerations ; the other embraces the active phenomena—various inflammations. Lancereaux's division is simple and eminently practical:—

1st. The period of incubation (from the day of infection to the appearance of the chancre.)

2nd. The period of the local eruption (during the existence of the chancre.)

3rd. The period of the constitutional eruption (during the time the secondary symptoms exist.)

4th. The period of gummy productions (the time of the tertiary and quaternary symptoms of other writers.)

For clinical purposes the arrangement given by Diday of the successive phases which syphilis undergoes in its evolution is, I think, the simplest and the best. According to him, syphilis, when not hereditary, presents eight features worthy of careful scrutiny, provided the investigation of them is within our reach :—

1st. The contaminating cause.
2nd. The period of incubation.
3rd. The initial lesion (the chancre itself.)
4th. The second incubation.
5th. The prodromata.
6th. The first evolution of constitutional symptoms.
7th. The glandular affections.
8th. The successive relays of eruptions and other symptoms, often, but improperly, called relapses.

It is by a careful analysis of the symptoms which may be grouped under these eight heads, that we may arrive at a tolerably accurate conclusion with regard to the severity of the attack of syphilis, under which any patient may be suffering. It requires but a small experience to see that syphilis, like all other diseases of the kind, presents itself to us sometimes in a mild, sometimes in a severe form. The most important thing which science can hope to do in the treatment of this formidable complaint is to detect and lay down with precision the symptoms by which we may be able to predict that the complaint is about to run a mild or a severe course ; whether, in short, we can afford to allow the work to be executed by nature, with little or no help, or whether it would be necessary for us to step in and use remedies, which, although useful in one way, are certainly injurious in another ; to learn, in fact, how long we may stand by, watching the spontaneous evolution of the disease, and skilfully to determine the moment when it may be necessary for us to have recourse to those measures which correspond to the ergot, the forceps, or the cephalotribe, in the hands of the accoucheur.

The celebrated Astruc, in the end of his remarkable work on "Venereal Disease," gives an interesting account of the methods of cure used by the Chinese ; he says they have two modes of treatment, one which drives out the disease gradually by gentle sweats ; the other which takes it by storm. The latter is accomplished by mercury, or "*kiu-fen*" in the Chinese language. This is exactly what requires good generalship on the part of the practitioner, viz.—to determine the kind of case in which mild measures will be successful, or that in which he must fall back on his storming party—his "forlorn hope."

It would be foreign from my purpose to enter into any discussion as to the causes which make syphilis mild in one person, severe in another. The truth is, we know very little about this; but the fact is so. The "vérole faible," and the "vérole forte" of Diday, which you may translate as you please, the mild and inveterate, or the benign and the malignant syphilis are met with in practice ; and this is, after all, the best division of the subject for clinical purposes; it is in fact the division into syphilis, which is curable by simple rational hygienic measures, and that which requires mercury.

I consider it all nonsense to call these syphilis and syphiloid, syphilis and pseudo-syphilis. They are one and the same disease, differing in intensity, as other diseases of the same kind differ in intensity, and needing different treatment according to these differences. It is in the highest degree unphilosophical to make distinctions where no real distinctions exist.

The first great step towards proving that syphilis is a

true toxæmic disease, and therefore one capable of self-cure, was made by Carmichael.

Mr. Rose, of the Coldstream Guards, followed up what he had begun. He had a field for research among the soldiers of his regiment, which offered him a means of obtaining more accurate results than most persons in civil practice can hope to obtain. By direct observation he proved that all primary syphilitic affections could be cured without mercury, and that the secondary lesions which followed also in time, gave way to mild and simple treatment without mercury. "In my opinion," says Sir William Lawrence, "this is the most important step that has been taken towards understanding the nature and treatment of the venereal disease, and I should place the truth thus"—originating with Carmichael, and "established by Mr. Rose, far beyond any of the speculations contained even in the work of John Hunter." The clear-sighted Graves, that great and philosophic physician, gave its full value to this truth. "Mr. Carmichael, of Dublin," he says, "was the first who materially improved this important practical branch of our profession, and taught, in a clear and scientific manner, when mercury ought, or ought not, to be exhibited."

The slowness with which practitioners have come to see in syphilis a disease not essentially different from other toxæmic maladies; the tenacity with which, even to the present hour, some cling to a mercurial treatment in all syphilitic cases, are due, in a great degree, to the old, but erroneous, idea to which I alluded in my former lecture—viz., that syphilis is a disease with an unconquerable tendency always to go on from bad to worse, unless checked by the specific action of mercury, which has been supposed to destroy the venereal poison as an alkali neutralises an acid.

Carmichael fell into the error of believing in the plurality of the syphilitic poisons, he attempted to show that there were several distinct kinds of primary ulcers, each followed by its peculiar set of secondary symptoms. He conceived that in the case of each distinct primary sore, there was a distinct poison—a germ, or seed, put into the soil; that we had, as I may say, the oats sore, the wheat sore, the barley sore, and the rye sore, each bearing in time its own crop. He thus looked at the papular, the pustular, the scaly, and the rupial eruptions as the results of different poisons. Experience has not supported this view; the different forms of eruption are due to the soil, not to the seed. There were many who could see Carmichael's error, and ridicule it, who failed to catch the fundamental truth which ran through his observations. I ask, what was Carmichael's practice? In practice he separated the sheep from the goats—the cases which need mercury from those that do not—the cases, as I may say, of natural labour from those requiring instrumental interference. This truth, "éclate dans l'œuvre entière de Carmichael ce profond observateur si méconnu si travesti." Diday gives merit to whom merit is due, and I, gentlemen, preach to you the truth I learned from my first master, and I preach it to you with all the earnestness which arises from conviction of its truth.

Although I admit that we at present know no remedy which exercises so great an influence over syphilis as mercury, yet, I very confidently affirm that the majority of the cases which come before you in practice, may be cured without taking one single grain of it, and in after years they will be healthier, haler men, than if they had been treated by mercury.

But some one of you says, "if mercury is the most powerful remedy against syphilis, why not use it in the milder as well as in the severer cases; what harm does it do?"

This is a question which would be answered very differently by different practitioners; some assure you that mercury is a tonic, that men thrive and fatten on it; others tell you that it is an infernal agent to be avoided, as death or sin, that it is a source of disease worse than that it is intended to remedy.

Here again, gentlemen, although I venture to give you my own views, I do not ask you to adopt them. Do not blindly swallow my assertions, or those of any one else. Keep your eyes open: observe and note results for yourselves. You stand exactly where I, myself, did 15 or 20 years ago. You halt between two opinions. You stand as I, myself, did, to use a homely comparison, like the ass between the two bundles of hay—you know not which to turn to.

That mercury is a very powerful remedial agent, I do not question: but it is potent for evil as well as for good: it is as a two-edged sword, while it cuts the disease at the one side, it cuts at the constitution on the other. What the knife is in surgical practice, what the crotchet and the perforator are to the accoucheur, mercury is as a therapeutic agent. It should never be administered without duly considering whether the injury which it inflicts on the constitution may be fairly regarded as compensated for, by the benefit which is likely to result.

The greater ills said to arise from the use of mercurials have been, I think, exaggerated. At least, as these preparations are generally exhibited in the present day, I have rarely seen palsy, caries, madness, &c., as a consequence fairly traceable to this cause. An impartial consideration of the reports of the diseases met with among the workmen employed in mercury mines (at Idria and elsewhere), as well as among tradesmen (mirror-makers, gilders, &c.), who are exposed to mercurial vapours, does not lead to the conclusion that these very formidable consequences of mercurial poisoning are so common as some would have us to believe.

The minor ills arising from the use of mercurials meet us at every turn. Cases like the following are of almost daily occurrence:—

A young man, as a boy the healthiest of a very healthy family, met with a severe injury of the eye—according to a practice happily less frequent than it used to be, he was kept for some weeks in a dark room and mercurialized. Years afterwards he is the least robust of his family. He is sensitive to changes in the weather; before he is up in the morning, he knows from what direction the wind blows. By slight irregularities of diet dyspepsia is induced; the white of the eye is jaundiced and the urine loaded with lithates and with bile. In such cases the gums often recede from the teeth, neuralgic and rheumatoid pains pester the patient. He is a weaker vessel than he was before—convalescence from slight illness is slow—such individuals are more a prey than their neighbours to that slighter form of melancholia which we commonly call "the blues." The use of mercurials for any considerable time, transforms a moderately strong man into what we ordinarily call a miserable devil. It makes him hippish and hypochondriacal, and gives him a greater proclivity to disease than others. In short, "the thousand natural shocks that flesh is heir to,"—even to the most robust of us—become, in his case, multiplied into ten thousand.

Mankind in the aggregate suffers more annoyance from such creatures as mosquitoes, gnats and midges, than from the depredations of the lion and the tiger; so the minor ills arising from mercury in their aggregate, bear harder on mankind than the more formidable but rarer affections of a grave character which are traced to it.

Such, gentlemen, are my views, yet I know that you will meet some who have enjoyed large opportunities of practice, and yet have not recognised the ill effects arising from mercury; they say, it does no harm and may do good; and so it becomes taught as a principle, (I do not now speak of the treatment of syphilis), that when you are in doubt as to an obscure affection, you should give mercury: it is said—fire into the bush, you may have the good luck to shoot the hare which perchance is lurking in it and you do the bush no harm.

Against such a principle I cannot speak too strongly—to be in doubt is to be in ignorance—and better far admit one's ignorance than blindly have recourse to a remedy which the experience of mankind admits to be anything

but harmless. It is a principle which inculcates that you are to inflict upon your patient a very certain injury, with a very slender chance of doing him any good. It is a principle against which it may seem to some of you almost ridiculous to have to raise one's voice in the present day; yet, I assure you, it is one even still but too generally acted upon.

To return, however, to the subject of syphilis, I have, I trust, explained to you the apparent paradox: that while I admit that no remedy exercises such an influence over this disease as mercury, I should recommend you to have recourse to it in practice as rarely as possible.

There are in No. 2 Ward, at the present moment, four patients—

Peter K.,	. .	18 years of age.
Michael B.,	. .	25 „ „
Michael D.,	. .	22 „ „
Matthew M'D.,	.	58 „ „

suffering from secondary venereal symptoms, each presenting characteristic eruptions, &c. These patients have been under my care from the first—that is, these four have not, as some others, been treated mercurially by any other practitioner before admission to this hospital. Of these four, one is taking, and one has used, mercurials; two have not, and, I hope, never need take any.

To point out to you the principles which guide me in making this important difference in treatment, shall be the object of my next lecture.

In conclusion, I would observe that in the wards of an hospital like this, you meet with a larger number of cases requiring the use of mercury, as a remedial agent, than you will meet with in ordinary practice; and for this very simple reason—the slighter cases, the cases of what Diday calls "vérole faible," do not require to come into hospital for treatment. The bulk of the cases of syphilis which you see here are severe, or malignant syphilis.

During ten years, while I was Medical Superintendent of the Mountjoy Convict Prison, I met with 54 cases of syphilis. This is a small array when compared with the hundreds and thousands which figure in the statistics of some. The power of accurate observation within prison walls, the certainty and precision of the facts, the removal of many of the disturbing influences which confound results and observations made on ordinary patients; above all, the power of watching for years the undisturbed progress of the case, give, however, a great scientific value to observations made within the precincts of a convict prison. Of my 54 cases, 13 were from the first under my own care, never having been interfered with by any treatment until after their committal to prison. Of these 13 two only appeared to need mercurial treatment; the rest got well under that simple, rational, hygienic treatment, which can be so well carried out within a prison, where habits of dissipation are at an end, and time is no object.

Original Communications.

PHTHISIS PULMONALIS AND ITS TREATMENT BY "PANCREATIC EMULSION OF FAT."

By R. J. KINKEAD, A.B., L.M. T.C.D., L.R.C.S.I., Etc.

In order to treat phthisis pulmonalis with any hope of being successful, it is absolutely necessary to consider carefully as much as we know of the pathology of the disease, the exciting and predisposing causes, and to inquire into the nature of what we call the tuberculous deposit.

It is only by so doing that we can act from knowledge like men endowed with reason, and not by guess-work and routine practice, in many instances sacrificing our patient's lives, and bringing disgrace on our profession.

It is this knowledge which enables us, from amongst the multitude of remedies offered for our use, to choose those likely to prove beneficial, and to reject the useless and injurious. This knowledge enables us also to avoid the too common mistake of thinking that a medicine which in some cases does good, must be a specific, and of itself and by itself, able to cure phthisis, and so neglect that combination of remedies which, in this disease, is most essential to guide it to a successful issue.

Our knowledge of the constitution of tubercle is anything but satisfactory. Two opinions are chiefly supported by pathologists, one class affirming that tubercle is an exudation essentially morbid, the other, that it is merely a retrograde metamorphosis of pre-existing structures, either natural or morbid.

One of its essential characters is that, however deposited, it is incapable of development, but on the contrary, has a constant tendency to degenerate. Tubercles are either grey or yellow; the grey are tough, soft, of a pearl-grey colour, have a certain degree of organisation, being composed of round, oval, or triangular-shaped bodies imbedded in a basis substance, and are soluble in liquor potassæ.

The yellow appear to be a degenerated, and more especially a fatty degenerated, form of the grey.

Tubercle is generally produced without inflammation, as implying pain, redness, swelling, and the production of lymph or pus. The question now arises as to the origin of tubercle. What are its exciting and predisposing causes? The exciting causes are, generally speaking, cold, and breathing an atmosphere loaded with irritating particles.

Our knowledge of the predisposing causes is not at all so clear. What we do know seems to be something like the following—That it is an essentially constitutional disease. Whether local irritation, such as living in an atmosphere loaded with minute atoms of organic matter, can occasion the local development of tubercle without the constitutional tendency being present; whether "the knife-grinder's rot," the so-called cases of "consumption" in flax-scutchers, &c., are really cases of tubercular phthisis, or merely of hectic fever, induced by numerous spots of circumscribed inflammation, running on into abscess, or causing excessive purulent expectoration from inflamed bronchi, occasioned by the lodgment of minute particles of extraneous matters in the lungs, is yet to be solved. But be this as it may, the constitutional nature of tubercle, whether developed in the head, lungs, or mesentery, is one of the best-established facts in medicine. At the head of these constitutional predisposing causes stands hereditary taint, and then comes whatever tends to bring the system into a state of deficient nutrition.

In this state of the system, in which tubercle is likely to be developed, we cannot say that the blood is in fault so much as the pabulum, which ministers to the nutrition of the body, through the blood, which impoverishes the blood, and, as a consequence, brings the tissues of the body to an impoverished condition likewise. In this state the blood becomes albuminous, and white corpuscles become increased.

The gastric and intestinal acids become greatly augmented, more than neutralising the alkaline secretions of the saliva and pancreatic juice, and so render them incapable of preparing fatty matters for absorption, and under certain circumstances render the albuminous constituents of the food more soluble. Hence more albuminous than oleaginous elements enter the blood, and cause the albuminous character of the blood, which, infiltrating the tissues, may in some instances be changed by coagulation into grey tubercle.

It is a certain fact that in most cases a low state of the system, accompanied by a poor state of the blood, is, if not a certain, at least a most probable predisposing cause, and in all cases tubercular phthisis is accompanied by this cachectic state of the body.

In considering the progress of tubercle, the tendency to degenerate which characterises it is an example of what has not inaptly been called the "vis naturæ medicatrix."

Grey tubercle degenerate into yellow, and the yellow to a puriform mass, which sometimes excites just sufficient inflammation to cause its own expulsion, leaving a cavity behind which (if there are no more tubercles or cavities in

the neighbourhood) contracts. The walls pucker in, and finally become obliterated, or the watery particles may be absorbed, the earthy constituents concrete, and the mass be converted into a hard chalky substance, principally consisting of phosphate and carbonate of lime, which is sometimes coughed up, or covered by a false membrane, may remain for years harmless in the lungs.

Cases of phthisis pulmonalis may, in my opinion, be divided into three classes :—

I. Cases in which tubercles are developed rapidly in great numbers, and of small size (milliary), occupying, perhaps, the greater portion of the lungs (tubercular infiltration of Baillie), accompanied by inflammation, and running a rapid course.

II. Cases in which tubercles are confined to one portion of the lungs, but are constant there, appearing for an uncertain time neither to get better or worse, but occasioning a certain amount of ill health—throat or stomach symptoms being most frequently complained of.

III. Cases in which the tubercles are deposited in crops in limited portions of the lungs, giving rise to febrile exacerbations, and intervals of health, according as the tubercle is deposited and got rid of by expectoration or concretion.

In the first class we can do little or nothing. In the second, and more especially in the third, class we can do much.

On being "called in" to a case of phthisis our efforts must first be directed to subdue any inflammation present, to allay any irritation in the lungs which would encourage the growth of tubercle ; secondly, we must endeavour to procure the elimination or absorption of the tubercular matter ; and, thirdly, we must strive to prevent the redeposition of tubercles.

Our treatment of the inflammatory attacks must be guided by the symptoms and nature of each case. The remedies that would produce the best effects in one might be most injurious in another.

The treatment likely to produce the elimination of tubercles is almost identical with that necessary to prevent their redisposition, and constitutes the, so to speak, "specific" treatment of phthisis, and may, in a word, be said to consist of putting into and keeping the body in as perfect a state of health as possible.

I purposely omit to speak of the efficacy of climate, although I believe that in most cases a judiciously chosen climate is absolutely essential to a perfect and permanent recovery. The other indications will be best obtained by procuring the assimilation of fats which supply respiratory food to the lungs and help to enrich the blood.

At the head of oleaginous preparations stands cod-liver oil, of which it is not stating too much to say "that its use has, to some extent, removed tubercular consumption from the list of incurable diseases."

The chief obstacles to its administration are the disagreeable taste, and its occasioning sickness. The class-books teem with recipes to obviate the former ; the latter, I believe, is occasioned, not by any intrinsic quality of the oil but by that excessive acidity of the gastric and intestinal secretions so characteristic of scrofulous cachexia, as to have gained the name of "strumous dyspepsia." This acidity may, in many instances, be overcome by combining alkalies with the oil. But even this method will fail in some cases, and the stomach still continue to reject the oil.

In these cases, and in those in which the repugnance to the taste cannot be overcome, I have found "pancreatic emulsion of fat" a most valuable agent. The office of the pancreatic juice in the body (it has alkaline properties) is to emulsify the fats, and render them fit for assimilation by the lacteals. The acid state of the gastro-intestinal tract in phthisical patients neutralises the action of the pancreatic secretion, and in some cases causes an excess of acidity. Now, pancreatic emulsion offers to the stomach the most easily digested fat (mutton suet) prepared for absorption by the very juice which disease has neutralised. So that, in one case, we have pancreatic juice neutralised by acid, and pancreatic juice and fat free to act, and, therefore, the fat easily absorbed ; and where the acid is in excess by the addition of an alkali, we have pancreatic juice and alkali neutralising acid, and pancreatic juice and fat free to act. But what is perhaps its most important action, is the educating the stomach to receive and digest oils, for, after the emulsion has been administered for some time, it will be found that cod-liver oil will agree in those cases in which before it did not.

The following case is not to be considered as a complete observation, owing to my unavoidable absence from home during a portion of the patient's illness ; nor do I think I am entitled to state that her recovery was entirely owing to the use of pancreatic emulsion ; neither do I say that her recovery will be permanent. But I do say that, from the circumstances of the case, I am entitled to argue that the emulsion aided, in a great measure, her restoration to health—and that, although the disease may recur, yet a rescue from immediate death and alleviation of suffering, if occasioned by a remedy, are sufficient, even if its powers are limited to few cases, to place that remedy high in the list of our most valued ones. But, I believe, that more extensive experience will prove what theory, and the little experience we now have, indicate, that pancreatic emulsion, supplying to the system as it does (what it most wants in scrofulous cachexia), a very large amount of nutriment with the least amount of digestive labour, and in a form most easily assimilated, will, when combined with proper treatment, and judiciously followed up by dietetic and hygienic rules, enable us to assist nature to cure a much larger proportion of phthisical cases.

Towards the end of August, 1867, I was "called in" to attend C. G., æt. 19, unmarried, by occupation a laundress, suffering from a severe cough of about three weeks' duration.

She had, for a girl of her rank of life, a peculiarly fair delicate complexion. The veins could be clearly seen ramifying under the skin ; upper lip slightly strumous ; eyelashes very long ; and hair of a reddish brown colour.

Her father and three brothers had died of acute phthisis.

Up to the period of her present illness her health had been good. At the time I first saw her, she presented most prominently the symptoms of inflammation of the lungs, but the breathing was more hurried and difficult than the amount and violence of the inflammation (confined to a portion of base of left lung) would account for. On a more extensive examination, I found the right side perfectly healthy, but there was slight dulness under left clavicle, and in the supra scapular region.

Expiration and inspiration were equal, the latter, too, was interrupted.

The pulse was rapid and weak.

Blisters ; small doses of tartar emetic, and the free administration of wine and nourishment, reduced the inflammation ; the respiratory murmur returned (save in the subclavicular and supra-spinous regions), and she was enabled to return to her usual occupations. From this time (Sept. 5) till sent for on Sept. 29, I did not see her.

I found her complaining of pain in left side (pleuritic stitches) ; short hacking cough ; night perspiration ; respiration rapid ; pulse 90, weak ; expectoration glairy and frothy, and containing bodies like grains of rice ; dulness increased in extent, reaching from left clavicle to upper margin of fifth rib ; bruit in left subclavian ; face pale ; complains of weakness. Ordered potass iodidi, gr. xxxii., liq. ferri iodidi, ʒiii., ol. morrhuæ, ʒviiss., a dessert spoonful three times a day ; wine, jellies, and nourishment were freely administered.

On the 5th of October, she got an acid and iron mixture, which restrained for a short period the perspiration, but she rapidly got worse ; great wasting set in ; lips became ex-sanguid ; dulness increased ; expectoration became nummular and purulent ; respiration difficult, and I detected pectoriloqui, and on one day metallic tinkling. The stomach became so irritable that it was with difficulty that it could be made to retain even a small portion of milk. The perspirations now became excessive ; the pain

in the side was constant and agonising, and she sunk so low that I expected her death daily. She complained so of want of rest from the pain and cough, that I gave her, as she presented no symptoms of deficient aeration of her blood, ℞ liq. morphiæ hcl., ♏30, acid hydrocyan. dil. gtt. i., liq. bismuthi (Schacht) f. ʒi., emuls. amygd., f. ℥i., omni nocte, s.; this gave some relief.

On the 14th October I commenced the pancreatic emulsion, in two teaspoonful doses, two hours after dinner and supper, but on the second day I had to diminish the dose to one and a-half spoonful, owing to its occasioning sickness. After this, I can only describe its effect by saying it seemed "to work like a charm." The cough grew less, the drenching night perspiration diminished; the respiration grew so much easier that the patient was able to lie down at night, which for some time previous had been impossible, owing to the difficulty of breathing it occasioned; the pains grew so much easier that she was able to dispense with the anodyne draught at night; the pulse sank gradually from 130 to 70, and, at the same time, grew full and strong. She increased in weight and grew stout, and her strength returned by degrees.

Now, the mere fact that after taking the emulsion, she so rapidly recovered, would, by itself, be very insufficient evidence as to the efficacy of that remedy; it would be merely a "post hoc ergo propter hoc" assertion, and, consequently, of very little weight. But this fact, purposely omitted from the report of the case, changes the nature of the assertion, and proves that the emulsion was, at least, the most important agent in effecting her recovery. Two bottles of the emulsion were first sent down from Dublin. Whilst taking these the improvement in the patient's health was most marked; before the second bottle was finished, a fresh supply was written for, but owing to some unaccountable delay, it did not arrive till 9 or 10 days after the first supply was exhausted. During this interval, although the other treatment was continued, she sensibly fell back. The cough, pain in sides, and perspirations became worse, and she felt weak and desponding. On recommencing the emulsion, she began again to amend, and continued steadily to recover.

In a chronic case, the cough and breathing grew easier, and the perspirations ceased during the use of the emulsion. In both these cases, cod-liver oil, which had hitherto been persistently rejected, was retained by the stomach after the emulsion had been administered for some time.

CASE OF GENERAL PARALYSIS SUBSEQUENT TO CHOLERA.

By WALTER G. SMITH, M.B.T.C.D.

(Read before the Medical Society of the College of Physicians, Wednesday, January 15, 1868.)

The object of recording rare or exceptional cases in medicine or surgery, may be assumed to be twofold; either the writer wishes to publish an individual case, as an instance of an uncommon form or unusual sequela of disease, or he is desirous of illustrating the beneficial effects of a particular course of treatment, so far as any inference can be drawn from a solitary example. It is on both these grounds that I submit the notes of the following case to the Society this evening, and I may be permitted to say that I have not been able to meet with a similar case on record.

On the 25th November, 1866, I was called to see, in the absence of my father, Mr. J. W., aged 29 years, and found him labouring under diarrhœa.

Next day, my father visited him, and he was apparently doing well, but early the following morning we were hastily summoned to his bedside—profuse vomiting and purging having occurred during the night.

He was immediately removed to a private ward in Sir P. Dun's Hospital, and on his way to the hospital he vomited and became very weak. He remained there for nearly three weeks under Dr. Bank's care, and passed through a severe attack of cholera. The stage of collapse was particularly well-marked, and he suffered from troublesome and long-continued hiccup, which it was found difficult to control by any remedies, and he also experienced some difficulty in swallowing, attended with spasms across the chest, towards the close of the attack.*

He left hospital on the 17th of December, in good spirits, though greatly prostrated, and went to his father's place in the King's County. He did not long enjoy the change of air before he began to feel some numbness in the lips, mouth, and tongue, which was especially remarkable while in the act of drinking.

In the second week of January, *i.e.*, about three weeks after leaving hospital, his attention was attracted by his lower extremities failing in strength.

The first decided warning he received of impending mischief, was an inability to walk steadily. He staggered so visibly, that he was ashamed to walk abroad, as the people used to gaze at him, supposing that he was tipsy. After vainly striving against this weakness for a time, he was obliged to make use of a stick, and ultimately he could not stand at all without assistance.

He returned to Dublin on the 20th January, 1867, for medical advice. When I first saw him in town with my father, he tottered greatly, but was still able to stand upright, with his feet together, and his eyes shut, though with an inclination to fall forwards.

Long before the arms were affected, he perceived that sensibility was greatly diminished in the calves of the legs, so much so that he was scarcely conscious of feeling the weight of one of them when in the crossed position. In the after history of the case, it was remarked that washing his feet with tepid water occasioned such a sensation of tickling in the part, as was actually painful to bear. This numbness gradually extended, and was shortly followed by numbness of the upper extremities, commencing in the fingers, which, at the same time, became spasmodically contracted. When he attempted to lay hold of any object, his hand was suddenly flexed, and he could not seize it unless he carefully watched the hand, and controlled its movements with the eye. This tendency to contraction was first noticed in the ring finger of the left hand.

During the next week he rapidly lost power over all the extremities, became so helpless that he was unable to turn in bed, and if his feet were crossed, he was quite incapable of separating them.

His condition at that time was really distressing; completely paralysed, he passed some days in an almost vegetative existence; motionless, not even possessing strength enough to draw the bed-clothes over himself, yet with his mind clear and active. He was much annoyed with severe tensive pain in the feet, which was completely relieved by friction, and the slightest movement or exertion caused intense pain and distress. At no time were the involuntary muscles seriously affected, though for two days, after he came up to town, he partially lost control over the rectum and retained the fæces with difficulty. He could always command the functions of the bladder, but the sensibility of the urethra was evidently diminished at one period, for he could scarcely feel the contact of the urine with the mucous membrane as it passed out of the body.

His urine, I regret to say, was not examined.

One of the most remarkable points connected with this case is the following:—

During a period of about ten weeks, for a portion of almost every day, he was unable to introduce the smallest particle, solid or fluid, into the stomach. Whatever he swallowed passed readily down the œsophagus, but near its termination seemed to be suddenly arrested by an impediment in, or constriction of, the passage, through which not an atom found its way. A few minutes after deglutition, part of the food regurgitated into the mouth, the act being at-

* Mr. E. Collins, Med. Sch., was the resident pupil at the time, and took notes of the case.

tended with slight hiccup, and in a short time the whole was returned.

At this juncture he suffered from soreness of the throat, and for three weeks from acute pain across the chest whenever he attempted to swallow fluids, particularly on the left side under the scapula, thence passing into the arm, and leaving it numb and powerless for a few minutes.

A curious symptom presented itself coincident with the œsophageal obstruction, viz. spontaneous salivation.

Every day for many weeks, a copious secretion of thick ropy saliva took place, and he commonly ejected four large cupfuls in the twenty-four hours.

It must be borne in mind, that at no time was mercury, iodide of potassium, arsenic, or other specific sialogogue administered; neither was there any patent cause of irritation in the neighbourhood of the salivary glands, nor in the teeth or gums.

It was observed that the spasmodic closure of the œsophagus lasted, on a average, about three hours, but, on one occasion, in the month of February, not a particle of food, solid or fluid, could be introduced into the stomach for a period of sixty-eight hours, and we should have been forced to employ nutritious enemata to support his strength, had not this untoward symptom been relieved by the application of a large blister over the epigastrium.

I shall now briefly glance at the line of treatment adopted. In the earlier part of his stay in town, he was put on a combination of ergot of rye, with extract of belladonna.

This not proving satisfactory, extract of nux vomica was exhibited for some time, and pushed till muscular twitchings were produced but under both these methods of treatment he was sinking into a more helpless condition.

I have alluded to the striking manner in which the incapability of the œsophagus to permit the passage of subtances towards the stomach was completely dissipated, when it had continued for nearly three days, by the stimulus of a blister to the epigastrium.

Had I been aware of it at the time, I should have tried the effect of sipping orange juice for the relief of the salivation, a practice which has been found successful in the excessive secretion attendant on œsophagism.

Finding the above means unsuccessful it was decided, at my father's suggestion, to have recourse to electricity, and the first trial of it was made on the 25th of last February.

The apparatus I used throughout the case was constructed by Messrs. Elliott of London.

It consists of a single Smee's element, the amalgamated zinc plates and the central platinised silver lamina, being about 4½ by 1½ inches each, thus exposing a surface of nearly seven square inches. They are excited by dilute sulphuric acid; one part of oil of vitrol to eight parts of water. The poles of the battery are readily put into connection with the thick primary or inducing wire of an upright induction coil, and the electrodes can be so arranged that the operator may collect at pleasure, either the extra current developed by the mutual action of the spirals of the primary wire on each other, or the more intense current induced in the fine secondary wire, or, if he wishes, can call into action a combination of these two currents.

The intensity of the induction stream is increased by the presence of a bundle of soft iron wires, in the centre of the bobbin, while the influence of this central temporary magnet is regulated by withdrawing more or less of a copper envelope which closely surrounds these wires.

The necessary interruption of the battery current is secured by an ordinary trembler or rheotome, and the rapidity of the intermissions is governed by a screw which alters the distance of the trembler, from the central core of soft iron. The whole fits into a box 7 inches in height, 6·5 inches in width, by 4 inches in depth, portability and lightness being specially aimed at in its construction.

The slight inconvenience arising from the necessity of using acid with such a machine, as compared with the rotating magneto-electric machines is, I believe, far more than counterbalanced by the direct advantages resulting from the employment of a volta-electric arrangement, for

1°. The latter can be worked without an assistant for hours at a time.

2°. Its action is more uniform, and more easily regulated.

3°. The current evolved from it does not cause so much pain, or such irregular muscular contractions as the magneto-electric current.

4°. The ordinary magnetic machines are more liable to get out of order, become demagnetised after a time, and do not furnish nearly such a large quantity of electricity; and

5°. The disagreeable noise produced by the movements of the wheels and armature of soft iron contrasts unfavourably with the quiet hum of the invisible little trembler.

I began with a gentle secondary current to the right arm, and the second day after directed the faradisation to the left arm.

It would be tedious to go step by step through the details of treatment, and I shall therefore present the facts in a condensed form.

As a rule, the patient was faradised three times a week, for about ten minutes or a quarter of an hour at each sitting. At first the secondary current was alone employed, but after a time the combined primary and secondary current was brought into play, which I have always found to exercise a considerably greater influence on the motor nerves than the secondary only.

The right and left extremities were usually excited on alternate days, and the total number of applications, extending over six weeks, was as follows:—Lower extremities about thirteen times, right arm about twelve times, and left arm about nine times. It is right to mention that for the greater part of the time during which the treatment by electricity was pursued, he took no medicine of any description, with the exception of a few diuretic powders (soda bicarb., pot. nitr. aa. gr. v.) for the relief of some temporary œdema of the feet.

A liniment of aconite and chloroform was rubbed in along the spine for a day or two, but beyond this no internal or external medication was resorted to.

The steps towards restoration to health were encouraging, and steadily progressive.

Very shortly after the employment of the induced current the arms began to gain in strength, and in about a fortnight he could stand with a little aid, though still with a tendency to fall forwards.

Gradually and slowly he regained the power over the lower extremities, and simultaneously there was a marked increase of susceptibility to the electric influence.

It was not till a week later that he was successful in moving forwards a step or two without assistance, and with his eyes shut.

Two marks of improvement he especially noted himself, viz.: that his hands lost the yellow hue which they exhibited in the early periods of treatment, and that he no longer suffered from cold feet. The circumference of the limbs increased rapidly, and within six days the right arm had gained to the extent of three-quarters of an inch. The calves of his legs by degrees resumed their natural dimensions, and on the 27th March he felt strong enough to drive out for a short time.

As soon as he was able to write firmly the faradisation of the arms was omitted, and on the 11th of April I saw him for the last time, and learned that he had walked two and a-half miles the day previously in an hour.

Change of air and country life soon recruited his strength, and early in May he came up to town, and for two or three days was again annoyed by the spasmodic obstruction in the œsophagus, which was once more relieved by the application of a blister.

On the 3rd of December, 1867, I met him in College, looking remarkably strong and healthy. He told me that

he thought nothing of walking fourteen miles in the day, but was still frequently troubled with the resistance of the œsophagus to admit solids, so much so that he was seldom in a position to eat a hearty dinner.

We may, I consider, view this case before us as an example of paralysis consequent on blood-poisoning of the nerve-centres, or, more probably, of nervous malnutrition after the exhausting discharges of a grave attack of cholera.

Dr. Handfield Jones has shown, and Dr. Russell supports his views in some recent papers in the *Medical Times and Gazette* (October 10th, 1863, May 25th, 1867), that, of the various influences which tend to depress the functional energy of the spinal cord, some act upon the nervous tissue in common with the rest of the body, while others exert their power upon the nervous tissue exclusively, and the successful termination of Mr. W.'s case, which would come under the former head, was doubtless mainly due to the asthenia of the cord having been arrested speedily, and thus any destructive organic change anticipated, for the prognosis is favourable in proportion as appropriate treatment is adopted sufficiently early.

In similar cases, it is well to remember that the existence of a state of malnutrition will exert an unfavourable influence on the prognosis should even a small amount of organic mischief be set up.

It will, perhaps, be readily granted that a parallel may be drawn between this case, and those cases of paralysis resulting from spinal exhaustion induced by masturbation or venereal excesses.

Dr. Russell has given the details of some cases of this nature in an interesting paper in the *Medical Times and Gazette* for 1863.

The analogy may be traced in the mode of invasion, in the impairment of sensibility, in the legs being primarily affected, in the diminution of muscular irritability, and in many other particulars. But one point of difference especially is to be remarked—viz., that while in the cases related by Dr. Russell, paraplegia was the prominent symptom, the motility of the upper extremities being unimpaired in Mr. W.'s case, all the voluntary muscles were implicated, though the affection of the arms was secondary to that of the legs. Dr. Russell likewise was unable to see any benefit accrue from the continued employment of strychnia, even when the alkaloid was administered in quarter grain doses, and produced its well-known physiological effects powerfully on the paralysed limbs.

Looking back on the general history of the patient, and especially on the steadily downward tendency of all his symptoms before subjected to treatment, it would seem that this case may fairly be placed in the category of cures rather than that of recoveries.

During the whole of his stay in the country he was daily and sensibly growing worse, nor was there any decided amelioration in the symptoms till electricity was resorted to. Even granting that in many cases of paralysis, apparently resulting from toxæmia or from deficient nutrition, the prognosis is hopeful, it will at least be conceded that his progressive restoration to health was eminently assisted by the application of faradisation.

The improvement resulting from the employment of the means used was noticeable from the beginning, yet we should not be deterred from persevering in faradic treatment even when no perceptible effect is produced at first. Of this I have at present an instructive example under observation in the Adelaide Hospital.

In conclusion, I would say a few words respecting the meaning of the terms to be adopted in speaking of treatment by electricity.

By electrisation is understood the employment of static or Franklinic electricity, as produced by frictional means or accumulated on a Leyden jar.

Galvanisation implies the use of the continuous galvanic current, as evolved from a voltaic pile or battery, and faradisation expresses the local application of induced currents, whether caused by the mutual action of the spirals of a short and thick wire on each other, or by the influence of a permanent magnet, or by a current circulating through a closed wire, and which admits of being rapidly opened or completed.

It is a fitting tribute to the memory of that great philosopher who has so lately passed from among us, that his name should thus be perpetuated in that branch of science in which he was chief.

Much of the discrepancy which is so often confessedly met with in the records of electro-therapeutics is, I am convinced, traceable to the carelessness and inaccuracy of writers with reference to the form of electricity selected and the precise manner of applying it.

Dr. Althaus, in his valuable work, gives some striking examples of errors arising from this source (see p. 163 and 343). Electricity is an agent potent for evil as well as for good, according as it is directed, and though, when unadvisedly employed, it too often becomes an instrument of much mischief, yet, under judicious management, it is a tractable as well as a valuable servant, and it is especially remarkable as being one of the few potential remedies which the physician can command.

Literature.

We have on a former occasion freely acknowledged the impossibility of condensing into a brief review an adequate account of such a volume as some of the hospitals yearly issue. In order to make up for this we instituted the plan this year of briefly noting some of their more striking points, and returning at intervals to the individual papers. In this way we have, during the last two months, given full attention to the volumes of St. Bartholomew's and St. George's, though we have far from exhausted their contents. We have now before us the new volume of Guy's Hospital Reports,[1] the oldest annual of the kind, and this year as worthy as ever of the great reputation of the school. We could wish, even if the present cover is to be continued for the sake of uniformity, that on a future occasion the edges might be cut. In books which are standard works of reference, too little attention is paid to the binding. In this respect the works of the new Sydenham Society are a model which would be well worth imitating. But to our Guy's Report. Mr. Cock opens with a second case of Pharyngotomy for the removal of a foreign body impacted in the pharynx. In both the cases now recorded by the Senior Surgeon of Guy's Hospital, nourishment was able to be given by a flexible catheter prior to the operation, and afterwards the patients were sustained by nutriment freely administered both by the œsophagus tube and enemata. Mr. Hilton follows with clinical lectures delivered during the last winter session on (1) a fatal case of rupture of the left kidney, in which hæmaturia was a prominent symptom, and in which he speaks of clots of blood as aids in diagnosis. (2.) The diagnostic indications afforded by blood from the urethra, rectum, or stomach, the chief point being that a clot may destroy life as in cut-throat, or in operations about the mouth. (3.) Cases showing how a clot destined to arrest hæmorrhage may endanger life or interfere with the success of an operation. (4.) Extraneous bodies floating in the thecæ, connected with the tendons of the fingers. Long standing ulcer on a stump cured by rest. Arrest of repair in a stump, benefited by division of nerves. (5.) Simple fracture of femur followed by tetanus. Lacerated wound over knee followed by suppuration of the joint, and anchylosis of femur and tibia in a good position. It will readily be understood that these cases, with Mr. Hilton's remarks, are all particularly interesting. The materials of the lectures have been arranged for publication by Mr. Eastes, the able Surgical Registrar.

Mr. Salter, M.B., F.R.S., Dentist to the hospital, furnishes an essay on affections of the nervous system dependent on diseases of the permanent teeth, which we commend to all engaged in dental or in general practice. Then Mr. Cooper Forster details the cases in which Sir James Simpson's discovery of acupressure has been tried at Guy's.

Dr. Hicks relates forty-one cases of uterine polypi. These are sure to attract the attention of the general reader.

The next paper is a most valuable contribution on some of

1 Guy's Hospital Reports. Edited by C. Hilton Fagge, M.D., and Arthur E. Durham. Third Series. Vol. XIII. London: J. Churchill and Sons. 1868.

the affections commonly classed as nervous deafness by Mr. J. Hinton. It details at length twenty-three cases, interspersed with many valuable observations. The whole paper is written with that care and lucidity of expression, which have placed the author among our first writers, and with that practical knowledge which have given him so great authority as a practitioner.

Dr. Owen Rees relates and comments upon two cases of elephantiasis græcorum. Dr. Fagge follows on certain rare cutaneous affections. We meet again with Mr. Hilton, as contributor of a case of colotomy, in which the operation was twice repeated. Two plates illustrate this case. Dr. Taylor next gives cases and observations in medical jurisprudence. This is followed by Dr. Fagge on keloid and allied diseases—an elaborate paper of 74 pages.

We have next a still more exhaustive paper by Dr. W. Moxon, on the history of visceral syphilis, extending to 80 pages of letterpress, and illustrated by two plates, each containing three figures representing syphilitic affections of the kidney and diaphragms, and their microscopic characters.

Dr. Stevenson gives us a note on a case of melanuria. Mr. Bryant follows with his late case of splenotomy; a second contribution by Mr. Bryant is on malposition of the testicle, and here again we have two plates.

The guaiacum process for the detection of blood in medico-legal cases, and the antozone test are considered by Dr. Taylor. The dissection of a monster is the subject of the next paper, by Dr. Hicks and Mr. James Bankart, conjointly. There are three plates to this paper. Two papers follow from the pen of Mr. Birkett, the first on intestinal obstruction; the second on the operations performed in the hospital during the last ten years, for the removal of stone from the bladder. Mr. Durham adds a case of the hæmorrhagic diathesis, and Dr. Pavy, an essay on gastric erosion. The volume closes with the second series of Mr. Bader's human eye in health and disease, as seen with the ophthalmoscope, the first series having appeared in the reports for 1865. This second part is illustrated with six beautiful chromo-lithographs, showing the appearances of the optic discs of differently coloured eyes in health. We have thus enumerated the contents of this valuable volume. Twenty-two essays by the staff of Guy's Hospital could not of course be criticised in the space at our disposal for a single book. We must therefore rest content with having briefly pointed out what the work really consists of, reserving an analysis of some of the most practical papers, or an outline of some of the most striking cases for future consideration. These we shall probably digest from time to time, in the columns we devote to hospital reports, much in the same way as we have adopted with the St. George's and St. Bartholomew's volumes—a plan we are pleased to find has given universal satisfaction.

HOSPITALS AND DISPENSARIES.

The interest of medical men in hospitals, and other charitable institutions, their history, mode of management and arrangement, is sufficiently attested by the number of pamphlets and larger productions that have appeared of late years. From these it is also clear that the interest evinced by the general public is constantly growing, so that a wider circle of readers are ready to hear all about these charities, and the manner in which their defects may be remedied. This is undoubtedly a great advantage, for the larger the number who make themselves acquainted with our machinery for relieving the sick poor, the more thoroughly will that social duty be performed. It is just one of those departments in which the public may most safely aid the profession, and in which, with men of real benevolence, there is no risk of the medical man's province being invaded by those who do not understand its duties and responsibilites. It is our intention, as soon as time and space permit, to take up this question at length. Meantime, we devote a paragraph to the most recent work on the subject. Dr. Oppert's volume[1] has laid on our table several months, and our excuse for allowing it to do so is, that it is to a certain extent a book of reference, although it may be read through at once by any one in search of information about the various charities included in the title. It is a volume of more than 200 large 8vo pages, and illustrated by 58 woodcuts. It is divided into two parts. The first treats of the construction and administration of charitable institutions. The second comprises a series of descriptions of existing institutions in Great Britain and on the Continent. To the profession, the second part will, no doubt, prove most useful. Here they may find an account of important hospitals in America, Belgium, Denmark, France, Germany, Holland, Italy, Russia, Spain, and Switzerland. The part allotted to Great Britain is of course very liberal, and the London Hospitals take up the largest share of attention. In these also, the *special* as well as the *general* hospitals are also represented — the author finding some of them, such as the Consumption Hospitals and Lock Hospitals amongst our most important charities. The account of the German and French Hospitals is also very full, and the work, as a whole, has an appearance of completeness that will gratify those who refer to it. In a future edition, descriptions of newer institutions as they become developed will, no doubt, be inserted. The amount of labour bestowed on a book of this kind must be immense. The mere collection and compilation of the facts, would occupy months, and when we add that Dr. Oppert has visited, and personally examined a large proportion of the institutions he describes, both in these islands and in France and Germany, the reader will at once comprehend how reliable is the information thus brought together. We know of no other book in the language with which it can be compared. The immense number of details here collected, distinguish it as a mine of facts which should be studied by Committees, Boards of Guardians, and all other persons upon whom may devolve the duty of assisting in the construction, or in the management of institutions devoted to the relief of the sick. As such, we should be glad to see a copy laid on the table of every such charity whenever the governing body assembles for the transaction of business.

1 Hospitals, Infirmaries, and Dispensaries: their Construction, Interior Arrangement and Management, with Descriptions of Existing Institutions. By F. Oppert, M.D., Physician to the City Dispensary. London: Churchills. 1867.

THE PROGRESS OF SURGERY.

Many of our readers will remember that in 1864 and in 1865 Sir William Fergusson delivered some lectures on the recent progress of Anatomy and Surgery at the Royal College of Surgeons. They were reported more or less fully in the medical journals at the time, and appeared in the *Lancet, in extenso*, with illustrations on wood. Sir William has lately republished them[1] in a handsome 8vo volume, and in this form they will, no doubt, obtain a wider circulation in the profession, as they are well worthy of a place on the shelves of all surgeons. We have said they are on the progess of surgery; for although the Chair of Anatomy was also filled by the author, it is undoubtedly as a surgeon that he was most looked to, and to surgery the larger part of the work is devoted. We may go further and add that it is to these advances which are due to the distinguished lecturer's own labours that the fullest consideration is here given—a very natural thing, indeed, for a man whose name is so closely identified with so many of the advances that have taken place of late. The lectures are reprinted in this volume in their original form. The only disadvantage of this is that the lecturer was limited by time in the treatment of his subject, so that there is ample room for additions. In giving, however, the lectures as they were delivered, Sir William has felt precluded from making these, although they would doubtless have been gladly received by his readers. We are pleased to say, however, that he holds out a hope that at some future time he may undertake a more exhaustive work on the subject. We sincerely trust he may be able to carry out this idea, for a complete history of anatomical and surgical progress during the present century could not fail to please and instruct an immense number of professional readers, while it would possess a further interest as the production of one whose surgical genius has engraved his name so deeply upon the record. At the same time, the present volume will retain its value as a reproduction of the two courses of lectures we have mentioned, in the precise form in which they were delivered.

1 Lectures on the Progress of Anatomy and Surgery during the Present Century. By Sir William Fergusson, Bart., &c., &c. London: J. Churchill and Sons. 1867.

MERCANTILE MARINE.—Dr. Arthur Austin Davis, M.R.C.S.Eng., has just been appointed an Inspector of Anti-scorbutics, under the recent Merchant Shipping Act, for the port of Fowey, Cornwall.

MEMORIALS have been presented by the Medical students of Aberdeen to Professor Pirrie, of that University, and to Drs. Keith and Fiddes, Surgeons to the Royal Infirmary, congratulating them on the success of their endeavours to improve and extend the practice of acupressure.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, FEBRUARY 26, 1868.

REPRESENTATION OF THE UNIVERSITY OF LONDON.

WE last week inserted some remarks on Dr. WOOD's retirement, written by an eminent graduate of the London University, who is fully conversant with every movement that has agitated that important constituency, and who, together with many others, fears lest the Medical Graduates will not secure a representative as alive to their interests as Dr. WOOD was always found to be. We trust these fears may not be realized, and proceed to add a few words respecting the coming contest.

We have all along, as our readers will remember, asserted that the University could find a worthy representative among its own Graduates, and we have urged the great claims which a medical graduate would have in the profession. It was anticipated, at one time, that a medical graduate would be found to contest the seat with a fair prospect of success, and, apart from political partizanship, we regret the present want of such candidates.

If the University graduates intend to go beyond their own ranks for a member, the next most desirable thing is to obtain a gentleman of acknowledged position and attainments in the world of mind. The selection of a merely political notoriety for the sake of the *éclat*, seems to us just one of these things that a learned body ought to be above; while such a pre-eminently scientific reputation as that possessed by the University of London surely ought to give a candidate of scientific renown a claim on the suffrages of the electors. We have, perhaps, gone as far as will be expected in advocating the claims that a Medical Graduate would have, were he to offer himself as representative of his *alma mater*. Yet the medical part of the constituency is of so great weight in this case, that we cannot refuse, in the interests of the profession, to canvass the merits of those who seem ready to serve it.

We have, on a previous occasion, spoken of the great scientific value of Sir JOHN LUBBOCK's investigations, and mentioned some slight indications that the Medical Graduates would find in him a representative ready to defend their rights and urge their claims in all just cases; while the similarity of his pursuits to some of theirs must at all times place him *au rapport* with their wishes. Failing then a medical man, we think Sir JOHN will find great support in the Liberal section of the Medical Graduates. The candidature of Mr. LOWE rests on altogether a different basis. He belongs, indeed, *nominally* to the same political party, but his conduct last session estranged many Liberals, and will, perhaps, render him more popular with the Conservatives. He possesses immense influence in having the open advocacy of the *Times*, though we may doubt whether the leaders of that powerful paper will have on the Graduates of London such an effect as they might on the general public.

As to scientific claims, no one advances them on behalf of Mr. LOWE, and his antagonism to universities is so striking that we wonder it has not provoked more comment. On this point the remarks of the *Spectator*, in an article on the 15th of February, are so opposite that we shall conclude our comments this week by citing them.

The *Spectator* concludes a lengthy and important criticism on "University Elections" as follows:—

"The exclusiveness which insists absolutely and as a *sine quâ non* on a London degree may be exaggerated, but the timidity and self-distrust which abdicate all careful or critical choice in favour of a distinguished name is of far poorer origin. If there is one thing more than another of which any great university ought to be capable, it is of giving young men of remarkable ability or genius, which it has the means of knowing, and which the world at large has not the means of knowing, their fair chance in the political world. And if it postpones such a man who really represents its own highest and most liberal culture, to a mere celebrity whose whole tone of mind is incompatible with its convictions, it is guilty of precisely the same lack of dignity as an ordinary ten-pounder who waives his politics from no corrupt motives, but from sheer inability to resist the overpowering fascination of "a lord" for his pauperised imagination. Mr. Lowe is perhaps the very cleverest, as he is certainly one of the most distinguished members of the present House of Commons. But you might as well return a bull to represent a china-shop as Mr. Lowe to represent any university at all. He represents the contempt for universities much more than any conceivable university feeling. His Oxford experience, and his violent reaction against it, have spoiled him utterly for the purpose of representing the earnestness, the judicial temper, the intellectual sensibility, the historical feeling, the scientific spirit which the London University, no less than all other universities, necessarily fosters. We have spoken of Dr. Stanley, the Dean of Westminster, for want of an equally well-known layman, as a fair type of true university liberalism. Of course the ideal representative of a university should have more of the spirit of modern science, combined with his ethical, artistic, and scholarly liberalism than it has lain in the Dean of Westminster's way to attain. But what can be more opposed to the spirit of such a man as this than Mr. Lowe's undiscriminating, ill-considered, rough-and-ready anarchical sarcasm, aimed now at some monstrous abuse which deserves to fall, now at some vital principle of all true education? A couple of years ago he wanted to erect a practical art like civil engineering into perfect equality with the general studies of a university, and give degrees indifferently for ability to build bridges and for literary culture. Only the other day he was for giving 'the parents of England the privilege and prerogative to direct the education of their children'—*i.e.*, as we understand him, for relieving the public schools of all right to direct the course of education of the pupils submitted to them. He declared against 'grammar' as a fit study for the middle-class schools. The whole tendency of all his brilliant speeches on these subjects has been to panegyrize utilitarian studies directly tending to advancement in life, and discredit relatively those studies which only teach lads to understand *themselves*. No doubt in taking this line he has made many brilliant hits—and also many equally brilliant misses. But we must say we can conceive no active and vigorous mind better calculated than Mr. Lowe's to *mis*represent any university, however liberal, and cover it with obloquy for blunders which it never shared, and for which it would, nevertheless, have all the responsibility. Mr. Lowe admires information of all kinds, but has, as far as we can see, absolutely no belief in cultivation. Timon of Athens would have been as happy a representative of the Athenians, as Mr. Lowe of any true university which aims at developing equally all the faculties of man."

THE METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE question of the supply of medicines for the sick poor, referred to in our recent notice of the meeting of the Metropolitan Poor-law Medical Officers' Association,[1] is too important to be summarily dismissed with the passing of a resolution, and we are glad to observe that the meeting, after expressing its regret and disappointment, inspired by the adverse opinion of the Poor-law Board, directed an appeal to be made to the Board to take the necessary measures to "give effect to the intentions of the Legislature." We shall await their decision with interest. Meanwhile, we desire to call special attention to the wording of the 69th section of the Metropolitan Poor Act, which provides that "Expenses incurred . . . after the 29th day of September, 1867 *(inter alia)*, for all medicine, and medical and surgical appliances supplied to the poor in receipt of relief by guardians, under this Act, or any of the Poor-law Acts, shall be repaid out of the Common Poor Fund." Two widely different interpretations of this clause have been suggested. The first assumes that, as it is not specified who shall supply the medicine, the party who does supply it, whether the Medical Officer or the Board of Guardians, is entitled to apply to the dispenser of the Common Poor Fund for reimbursement of the "expenses incurred." The second assumes that, as the salary of a Medical Officer who has contracted to supply the medicine, includes payment for the same; the repayment of the salary out of the Common Poor Fund is virtually repayment of the "expenses incurred," and, therefore, if the Guardians provide the medicine, the salary of the Medical Officer should be reduced by the amount hitherto expended by him in the purchase of drugs. In a strict legal sense there may be some weight in this view of the case, but it would be so opposed to the spirit of the Act, as expounded by Mr. HARDY, and accepted by men of all parties in the Legislature, that we do not think it is likely to be insisted on. And, in illustration of the Guardians' idea of the equity of the case, it is only fair to them to state that in the instances where the medicine has been provided by them under the provisions of the Act, no attempt has been made to reduce the salaries of the favoured Medical Officers, a line of proceeding which, as it has not been overruled, must necessarily have been approved by the Poor-law Board. Surely, then, it is but reasonable and just that all the Medical Officers should be placed upon the same footing.

We are glad to learn that the Poor-law Board have promised to "consider" the request of the Association to revise the salaries of Medical Officers upon an uniform and equitable basis. We cannot conceive with what show of reason or justice they can refuse to do this, and thus terminate the glaring anomalies of the present system. No part of the amount of the salaries is taken from the parish rates. Like the medicine, they are paid out of the Common Poor Fund; and, as heretofore, half the amount will be repaid by Government. The meeting was challenged to settle a basis for calculating the right amount of salary, and we are glad to observe that the subject will be taken into immediate consideration.

The other subjects of discussion—viz., the appointment of dispensers to workhouse infirmaries, and the large amount of desk-work done by Medical Officers, are very important, seeing it is alleged that half the time of some of the Medical Officers is consumed in these duties. Truly it would be a "wise economy" to put an end to the system by the appointment of dispensers, and allowing clerical assistance to the Medical Officer as well as the Master.

The best promise for the realisation of the views of this Association consists in their identity with those subsequently promulgated by the Poor-law Inspectors of the district When Inspectors and Medical Officers agree, there can be little doubt of the result. That all things will work round right in the end we never doubted; but "hope deferred maketh the heart sick." We counsel the Medical Officers to persevere patiently, but firmly, in the course marked out by themselves, and we think we may go so far as to say that when the work is done, and Poor-law Reform is achieved, a future generation, in awarding the share of merit due to the workers in this good and truly national cause, will not be unmindful of the claims of this Association.

1 Vide THE MEDICAL PRESS AND CIRCULAR, page 119.

THE BIRMINGHAM GENERAL DISPENSARY.

THANK-YE doctoring has reached at last an extent which appears to us to require the very earnest consideration, both of the public and the profession. On the one hand, the experience of the Medical Officers of charitable institutions in England abundantly proves that the facilities provided by the benevolent for the medical relief of the poor are most grossly abused, and that the functions of such charities are commonly extended to those who are not only perfectly capable of paying for medical advice and medicine but, in many instances, ought rather to be in the position of contributors to the funds of the institution, than recipients of its charity.

It is a fact that the power of recommending, conferred on the benefactors of these institutions, is most injudiciously exercised in favour of well-to-do tradesmen and artizans, and thus not only is a great injustice unwittingly inflicted on the profession, but an unnecessary burthen of charity is thrown upon those who *do* contribute, and funds wasted on such promiscuous objects which are grievously required elsewhere.

To the profession, gratuitous medical labour has assumed enormous and most oppressive proportions, and is the cause not only of the diversion of an enormous income from its members, but of an amount of unnecessary, unremunerative work, which ought to be applied to other purposes. We think it is quite time that the enormous redundancy of hospitals and dispensaries, and the duties into which medical men are driven in connection with them, should receive attention. The public has become imbued with the impression that they have a right to the gratis work of the profession, a principle which is totally untenable, and which we would disclaim in the strongest terms.

The Medical Officers of the Birmingham General Dispensary have recently experienced the operation of this idea, and have most properly protested against it as inadmissible. Fourteen years since the Medical Officers of the Dispensary made application to the Committee that an *honorarium* should be granted to them in consideration of their services, not as an adequate return for their labours, but as a simple recognition of the obligatory principle. At that time the funds of the Dispensary were low and it was impossible to grant the demand, but now its resources have become so large that, in order to dispose of them, it

is necessary to confer the power of additional grants on the subscribers. Under these circumstances the Honorary Staff considered that their claim might properly be considered, but their application to this effect has been refused. In justice to themselves, and the profession, the Honorary Staff have, with one consent, resigned their offices, and we thank them for having, by the one act, maintained their dignity and enunciated a great principle for their brethren. It must be quite evident that the reason which the Committee assigned for their refusal—that, not being in a position to award adequate remuneration, they ought to give none at all—was only a farcical excuse for a most unjust and niggardly policy towards their Medical staff. We earnestly trust that we may not have occasion to record an unseemly and undignified rush for the posts which these gentlemen have, under such circumstances, vacated, and which can be accepted in the face of such a principle by no medical man who respects his position.

Notes on Current Topics.

Dr. Richardson's Lectures.

THE fifth lecture of this course was delivered on Tuesday the 11th, and would have been noticed in our last number, except for want of space. It was on the influence of anæsthetics on the nervous system. He showed that the whole nervous system is not affected by anæsthesia, except when it passes into death. Otherwise, the pulsation of the heart and the respiration would not remain unimpeded. The brain is the organ chiefly affected by these agents, which, through it, hold consciousness in abeyance. An interesting experiment was shown in illustration of this : a pigeon was narcotized with chloroform, then a rapid intermittent current was passed through its body ; the pigeon appeared at once to be restored, for it opened its eyes, rose from the table, and flapped its wings, but on stopping the current, it was seen to be as fully anæsthetised as before. Similar results were exhibited in a pigeon, of which the brain was frozen. The next point propounded by the lecturer, was how these effects on the brain are produced by anæsthetics. Dr. Richardson concluded from experiments, that the vapours act directly upon nerve tissue, either by preventing the development of force, or by arresting conduction—probably the latter. The lecture was as well attended as the previous ones by an influential audience. The concluding lecture of the course is on Tuesday, March 10.

University of Cambridge.

ALL undergraduates of Oxford and Cambridge may be candidates for the Natural Science Scholarship at Trinity College, and not merely those in their first year, as might be inferred from the announcement recently made. The examination will be in Easter week, and candidates must send in their names, as well as the subjects in which they wish to be examined, to the master of the college before the 18th of March. Further information may be obtained from the Rev. E. Blore, Tutor of the College. This is a scholarship particularly deserving the attention of those who intend to follow the medical profession.

St. Andrews University.

WE are happy to announce that the claims of the Medical Graduates of St. Andrews to the franchise, upon which we have lately several times commented, have been admitted, and that Doctors of Medicine are to be entitled to vote for the representative to be granted by the new Scotch Reform Bill.

Sir William Jenner.

THE chief topic of Medical gossip last week was the baronetcy of Dr. Jenner. Of course it will be readily understood that the title is strictly a court favour, but the services of this able and laborious physician to science are hereby indirectly rewarded. He would be the first to admit the merits of others, and if a particularly industrious career should be in a few instances thus commemorated, it may act as an incentive to others. We feel, however, and that strongly, the disgraceful fact that science is less recognised in England than in any other country. Many years ago, Jenner as well as others, his worthy compeers, had their allegiance been due to a Continental Sovereign, would have received an order of merit, in its country as much coveted as a baronetcy in this. Here it is as if the distinction were given because it is convenient for the attendants of Royalty to have a title. While, therefore, we congratulate the new Medical Baronet on the honour he richly deserves, we think he has more reason to be proud of the more lasting distinction his scientific labours have made for him, and we lament that Royal favour should not be more frequently bestowed on such worthy members of our profession.

Professional Libraries and Reading-rooms.

THE barristers of London have been lately setting forth, as a grievance, which only public opinion can redress, that the libraries of their Inns of Court are closed at sunset, so that they cannot spend an hour in the evening in looking over authorities. The doctors are in quite as bad a case. The libraries of the London Colleges of Physicians and Surgeons are of much less use than they might be, from the early hour at which they close. The College of Surgeons' library is a favourite resort with many, as it abounds in valuable books, and a large number of periodicals, English and Foreign, lie upon the table. The College of Physicians is more conveniently situated for many people ; but its central site in Pall-Mall is neutralized by the short hours for reading, and the small number of journals and books. We believe no public library is open during so few hours in the day, as that of this College, while the Saturday half-holiday is religiously observed. How poor the College is in books may be judged by the notice appended to every summons to a meeting of the Fellows, which is in these words :—"The following resolution was passed at a meeting of the College—'That Fellows and Members of the College who have published works on medical science, be requested to present copies of their works, and of subsequent editions of their works, to the library of the College.'"

Professional Fortunes.

THE golden lining to the professional cloud seems sometimes to be of a very substantial character, and it is at least an encouragement to medical men, in lack of public honours, that they may look forward to the more mundane reward of a handsome balance at their bankers. The metaphoric *acme*, known as "the top of the tree," is a wearisome journey, and seldom reached, but each toiler works on in the hope that he may be the successful competitor, and in his probational drudgery looks forward to the ideal day when

a valetudinarian duchess, as a patient, comes to be nothing but a bore.

Such a limit must have been almost reached by the four physicians, whose wills have been just proved at Doctors Commons for the sums placed against each. Alexander J. Sutherland, M.D., F.R.S., under £40,000; J. L. Morgan, M.D., of Haverfordwest, under £35,000; Charles G. B. Daubeny, M.D., F.R.S., of Oxford University, under £25,000, and J. Knox Vace, M.D., under £18,000.

Nearly an average of thirty thousand pounds each is a most respectable display for four *mere* doctors, and we congratulate our brethren that in these days of two-and-six penny *honoraria* such a record is even a possibility.

The Professorship of Hygiene at the Royal College of Surgeons of Ireland.

THE resignation of Dr. Mapother, Professor of Anatomy and Physiology to the College, of the chair of Hygiene, which he held for four years previously to his election to his present position, was presented to the Council of the College at their last meeting, and as soon as the Professorship has been duly declared by the Council to be vacant, it will be, in accordance with the Bye-Laws, advertised for twenty-eight days previously to the election.

The Professorship is one of those enumerated in the Bye-Laws as to be established in connection with the College, but it is a purely honorary position, no emolument attaching to its occupancy. For many years the functions of the chair remained in abeyance, and no lectures were delivered until the appointment of Dr. Mapother who resuscitated the study of the important subject of the Public Health within the College walls. The lectures of Dr. Mapother were numerously attended, and were published at the time in our columns, and subsequently in book form. The regrets expressed by the Council of the College at Dr. Mapother's resignation of the duties which he had so efficiently discharged, will be re-echoed by all students of the subject of which during his professoriate he had so ably treated.

The Yellow Fever at the Mauritius.

THE War-Office is held responsible for a most foolhardy and injudicious transaction, which claims a rigid enquiry on the part of the public. Our readers have been fully informed of the existence at Mauritius of one of the most virulent epidemics of yellow fever which has ever been recorded. The disease had become greatly mitigated, and the 86th Regiment, which had been kept for some months at the Cape, pending the cessation of the epidemic, were forwarded to Port Louis. By the time they arrived, the disease had broken out with increased virulence, and the population was suffering decimation. Under these circumstances the dictates of prudence would have suggested that the troops should not be landed. Nevertheless they were sent ashore in spite of the unanimous warning of the medical officers of the Port and the Regiment, and placed in the barracks, within whose walls the epidemic had raged only a few months before. The adoption of such a course requires some very remarkable exigency to justify it, certainly some better reason than the obstinacy of the officer in command. We have not heard that the presence of a military force was urgently demanded in the Island, certainly not in Port Louis, where the danger of placing troops was specially evident.

The Election of Coroner for West Middlesex.

As we stated in our last the nomination for this appointment, which has been so vigorously contested for several weeks, and we believe at an enormous cost, and has excited much interest in the Profession, took place at Brentford on this day week, and was as stormy and exciting as if the contest were for the county representation. The show of hands was declared to be in favour of Dr. Diplock, and the poll having been demanded by Dr. Hardwicke, was fixed for Friday.

At the close of the poll the following was the result:—

Votes for Dr. Diplock, 1604.
" " Dr. Hardwicke, 1470.
" " Mr. Walter, 51.

It will thus be seen, that the contest between the medical candidates was very close. The majority for Dr. Diplock was 134, whilst the number *polled* by the legal candidate was modest in the extreme. This unquestionably shows the bent of public opinion to be in favour of a medical man for this important office, and we cannot, therefore, but feel gratified at this further triumph for the profession.

Dr. Diplock employed the powerful organisation of the Liberal Registration Association; and to this undoubtedly, in a great measure, may be attributed his success.

The Senate of the Queen's University in Ireland.

BY order of the Senate, a Meeting of the Convocation of the Queen's University in Ireland will be held at Dublin Castle, on the 14th of April next, for the purpose of electing a Senator, to supply the vacancy created by the lamented death of the late Earl of Rosse.

In accordance with an opinion entertained by a large number of Members of Convocation, that the increasing importance of the Collegiate Medical Schools demanded a larger representation of Medical interests in the Senate, a requisition to Dr. William Mac Cormac, M.A., M.D., F.R.C.S.I., asking his permission to allow himself to be put in nomination for the vacant seat, was numerously signed by members of Convocation connected with the three Colleges, and was subsequently adopted at a meeting held in Belfast.

Dr. Mac Cormac's intimate knowledge of the system and arrangements of the Colleges, derived whilst pursuing the courses of Arts and medicine, his collegiate and university distinctions, and his connection with the Belfast School of Medicine, as one of the attending Surgeons of the General Hospital in that town; as well as the deep interest he has invariably taken in the subject of education, point to him as one eminently calculated to become a useful member of the Senate of the University.

Nicotiana.

WE are concerned to learn that active Englishmen and quick-witted Hibernians are smoking themselves into the laziness of Dutchmen, and the stolidity of Germans, and we prophecy only that which physiology and therapeutics teaches us, when we fore-cast a great and lasting deterioration in the national character under the chronic influence of stupifying sedatives. The quantity of tobacco imported into the United Kingdom, we learn by recent returns, has increased to nearly double the amount in twenty years, and at this day, men, and the abnormities of development designated "youths,"

imbibe enough of the herb to represent twenty-two ounces for every man, woman, and child within the kingdom. The little public interest which attaches to the condition of the livers and stomachs of excessive smokers, merges in a very deep concern for the effect of this endless semi-narcotizing on the mental powers of those who have hitherto made England what she has been amongst the nations.

Irishmen or Frenchmen may, perhaps, be none the worse by having their imaginative temperaments toned down to the fit condition for sober plodding business, by a daily constitutional sedative, but Englishmen, whose nervous system is set to the real pitch for substantial work, cannot but lose by a further relaxation. Those engaged in the study of the different phases of real life, so popular at the present day, have an interesting field for investigation opened to them, in the consideration of how far the epidemic of Dundrearyism and *nil admirari* which has recently invaded the young men of England, and of which one of the symptoms is the twaddle talked against early marriages, may have resulted from a permanent obscuration of energy by the abuse of tobacco.

Rattlesnake Poison.

Of transatlantic experimental physiologists and physicians, one of the most well-known in this country is Dr. Weir Mitchell. In 1860 he published through the Smithsonian Institution, an important monograph on the Poison of Rattlesnakes, in which he added very largely to our knowledge of this subject. Since then he has continued his experiments, and, as he has had occasion to alter some of his conclusions as well as to extend them, he has now issued a new essay on the subject, which will be found in the last number (January, 1868) of the *New York Medical Journal*. The essay occupies 34 pages of the journal, and contains, besides details of his experiments, a most interesting account of his mode of managing the reptiles. The following are the conclusions at which this eminent authority has arrived :—

1. One-fourth of a drop of the venom is fatal to pigeons under the age of four months. One-eighth of a drop is frequently a fatal dose. 2. The venom is absolutely harmless when swallowed, because (*a*) it is incapable of passing through the mucous surfaces ; (*b*) it undergoes change during digestion, which allows it to enter the blood as a harmless substance, or to escape from the canal in an equally innocent form. 3. Twenty-four hours after it has been swallowed, the contents of the bowel contain no poison. 4. The rectum of the pigeon does not absorb the venom, and it causes no injury when placed on the conjunctiva of animals. 5. The venom passes through the membranes of the brain, and more swiftly through the peritoneum and pericardium. 6. When the venom passes through the peritoneum it so affects the walls of the capillaries as to allow of their rupture and of the consequent escape of blood. The same phenomena appear on the bare surface of muscles thus poisoned. This, together with the defect of the coagulability of the poisoned blood, accounts for the excessive hæmorrhage about the fang wounds. 7. The blood globules are unaltered in venom poisoning. 8. The rattlesnake is not susceptible of injury by the venom of its own species. 9. The sulphites or hyposulphites of soda or lime have no antidotal power. 10 Carbolic acid sometimes delays the fatal result, and usually lessens local hæmorrhage. 11. These effects are due to no influence of the acid on the venom, but to a direct effect upon the local circulation of the envenomed part. 12. Carbolic acid has no value as a true antidote, and when given internally does not affect the ordinary fatal issue.

Yesterday (Tuesday), the annual festival in connection with University College Hospital, took place in that institution, when his Grace the Duke of Cleveland, K.G., presided. The usual loyal and professional toasts were given, and heartily responded to, and judging by the influential attendance, and the number of subscriptions and donations announced, we anticipate a handsome addition to this most deserving charity.

On Thursday last, a female dwarf died at Walsall from inflammation of the lungs. She was eighteen years of age, and was nearly double the size round the body to her measurement in height.

A private hospital for patients suffering with diseases o the brain and nervous system (except insanity) is about to be opened in New York by Dr. William A. Hammond, whose name is a sufficient guarantee that the institution will be conducted in a proper manner.

In our number for February 12th, in the article on "New Books," the name of the publisher of Dr. Duncan's "Researches in Obstetrics" was misquoted. This important work, of which a review is being prepared, is published by Messrs. A. and C. Black. The mistake is not of great importance, since the name of Dr. J. M. Duncan is so widely known as a writer on obstetrics. Nevertheless, we think it right to make the correction.

A pamphlet by Mr. Cuffe, M.R.C.S., has been published (by Mr. Lewis) on the Woodhall Spa, midway between Boston and Lincoln. Besides the saline spring containing iodine and bromine in considerable quantities, Woodhall provides baths, hotels, and all creature comforts at a moderate price, and has the advantage over foreign spas of being near London. We lately received a bottle of the water from Messrs. Best and Sons, and duly drank a part of it. We can, therefore, assert that its taste bears out the report of Mr. Cuffe's pamphlet, that it contains the salts found in sea-water, as well as some others.

This week some preliminary arrangements will be completed for the meeting of Medical Council. A general wish has been expressed that it should meet again while Parliament is sitting, and that an effort should be made to obtain an amendment of the Medical Act.

"The physiological actions and therapeutical uses of conium, belladonna, and hyoscyamus alone and in combination with opium" will be the subject of the Gulstonian lectures, to be delivered at the London College of Physicians by Dr. Harley, in the first week in March, and Dr. Bence Jones will follow them with the Croonian addresses "On Matter and Force" in the following week. The Lumleian lectures will be delivered immediately after these courses by Dr. Guy, who has taken for his subject "The Factors of the Unsound Mind, with Special Reference to the Plea of Insanity in Criminal Cases."

Last week, an inmate of the Prestwich Lunatic Asylum, whilst in an infuriated mood, broke the jaws and beat out the brains of an unfortunate fellow patient. The jury, in their verdict, stated that death resulted from injuries inflicted by an irresponsible person.

We learn that Dr. Banks, the Professor of Practice of Medicine in the School of Physic in Ireland, has resigned that office. We believe the value of the appointment is about £300 a-year, and already Dr. Freke and Henry Kennedy are mentioned as probable candidates.

Dr. Lawson has been duly appointed Assistant-Physician to St. Mary's Hospital.

It is likely that Dr. Christison will be called to the Principalship of the University of Edinburgh, vacated by the decease of Sir D. Brewster, whose splendid career we epitomised last week.

We are informed upon excellent authority that no vacancy will be declared at St. Thomas's Hospital in consequence of the resignation of Dr. Barker, as the staff is considered quite sufficient.

We are gratified to be able to announce that the alarming illness under which Mr. Ledwich, the learned chief of the Ledwich School of Medicine in Dublin, had suffered, has completely relaxed in its severity, and that he is making a rapid progress towards convalescence.

Hospital Reports.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. Tonge.)

Erysipelas of Face.—A. M., æt. 28, compositor. Admitted October 15; discharged November 12; in hospital 28 days. *Recovery.* Intemperate. Previously ill 5 days. Had been drinking previously. Began with shivering, spread from right eye. Delirium, tremor, and spectral illusions. On 8th day, face very red and swelled; vesication and sloughing about eyelids; tongue dry and furred; pulse 120. On15th day an abscess in right side of neck opened. Well on 22nd day, with exception of small abscesses about scalp.

Liquor ammoniæ acetatis, chloric ether, and carbonate of ammonia (10 days.) Then quinine, dilute hydrochloric acid, and quassia. Opiates; castor oil.

Erysipelas of Face.—R. P., æt. 43, housemaid K. C. H. Admitted June 3; discharged June 13. In hospital 10 days. *Recovery.* Previously ill, 2 days. Shivering and loss of appetite. Spread from bridge of nose. On admittance, face red, swelled, and painful; can just open eyes; scalp unaffected; much headache; pulse 126. Convalescent on 10th day.

Carbonate of ammonia and chloric ether. Pil. Colocynth Co.

Erysipelas of Face.—S. G., æt. 22, ladies-maid. Admitted June 2; discharged July 28. In hospital 56 days. *Recovery.* Previously ill 1 month. Shivering, vomiting, and loss of appetite; followed by erysipelas of face, commencing on right cheek. Three relapses during last month; the last 1 week ago. On admittance, face puffy; cheeks red and desquamating; appetite bad; pulse 80; urine albuminous; no dropsy of ankles. On day face free from redness, but still puffy. Followed by chronic enlargement of right parotid. Albumen did not disappear.

Quinine and sesquichloride of iron. Cod-liver oil Pepsine. Collodion and castor oil to face.

Erysipelas of Face.—M. W., æt. 60, housemaid. Admitted November 7; discharged December 7; in hospital 30 days. *Recovery.* Previously ill 3 days. Began with shivering and anorexia. Spread from right ear. On admission, nose, forehead, and cheeks red, swelled, and painful. Some puffiness of scalp. Pulse 120. Tongue furred. Delirious before admission, and on 6th, 7th, and 8th days. Convalescent on 14th day.

Liquor ammoniæ acetatis, chloric ether, and bark (3 days). Same, without liquor am. acet. (20 days). Then quinine and dilute sulphuric acid. Brandy 12 oz. Collodion and castor oil to face.

Diarrhœa.—Ann E., æt. 27, cook. Admitted August 6; discharged August 12; in hospital 6 days. *Recovery.* Vomiting and diarrhœa 5 days. Some blood in motions. Well on 9th day.

Dilute hydrocyanic acid and bicarbonate of soda (4 days), then quinine and dilute sulphuric acid.

Diarrhœa.—J. H., æt. 30, nurse St. J. H. Admitted October 10; discharged October 20; in hospital 10 days. *Recovery.* Previously ill 18 days. Abdominal pain and tenderness. Much purging. Stools bloody. Headache, nausea, and loss of appetite. Well on 24th day.

Pulv. ipecac. co., aromatic spts. of ammonia, liquor ammonia acetatis, and chloric ether.

Secondary Syphilis.—Mary A. K., æt. 20, servant. Admitted January 19; discharged February 13; in hospital 25 days. *Recovery.* Loss of strength 2 months. Slight cough. Breath very fœtid. Large yellow ulcer at left side of posterior wall of pharynx.

Dilute muriatic acid and bark, grey powder and rhubarb, strong nitric acid to ulcer.

Secondary Syphilis.—J. A., æt. 21, servant. Admitted January 25; discharged April 9; in hospital 75 days. *Recovery.* Pains in bones. Worse at night. Coppery spots on face.

Iodide of potassium and bark, quinine and dilute sulphuric acid, bichloride of mercury and bark. Calomel fumigations.

Secondary Syphilis.—Susan B., æt. 28, married. Admitted May 17; discharged July 2; in hospital 46 days. *Relieved.* Sore 5 years ago, with suppurating bubo. Sore throat 5 months. Copper-coloured eruption 1 month. Tonsils much swelled. Voice husky. Ten days later much superficial ulceration at back of pharynx.

Iodide of potassium and bark, glycerine and sesquichloride of iron to throat; aperients.

Secondary Syphilis.—J. M., æt. 29, commissionaire. Admitted May 30; discharged June 7; in hospital 8 days. *Recovery.* Primary sore, without bubo, 6 years ago. Periostitis 3 months. Nodes on vertex of head, left side of forehead, front of left femur, left 8th and 9th ribs, head and front of left tibia. Free from pain on 7th day after admission.

Bicarbonate of potass and iodide of potassium.

Re-admitted on August 18; discharged on August 31; in hospital 13 days. *Relieved.*

Iodide of potassium and decoction of bark.

ST. GEORGE'S HOSPITAL.

DR. STURGES ON THE FORMS OF PNEUMONIA.

The article, No. XV., in the St. George's Hospital Reports on the forms of pneumonia, by Dr. Sturges, is accompanied by a series of carefully compiled, and highly interesting tables on which the observations are based.

It was in framing the statistical table of the Medical Registrar's Report for 1865, that Dr. Sturges was struck by the very slender bonds which held together, under a common name, affections of the most varied kinds.

Especially does this seem true in the instance of pneumonia, for, on reviewing all the cases of this disease described in the Hospital records, the result, as set forth in

the tables, shows very remarkably how pathological conditions, sufficiently similar to warrant the application of a common name to the series, are associated with every variety of clinical phenomena.

Before proceeding to an analysis of the matter contained in the tables, Dr. Sturges gives a brief summary of the views of writers on the subject of pneumonia, and its modifications; he alludes to the various forms of pneumonia recognised by authors, and shews the difficulty there is in making the clinical and pathological classification of these varieties of pneumonia accord well together.

The objects which the author proposes to himself for elucidation in his present paper are—*First*, a consideration of the causes which may produce the various changes which the lungs undergo in so-called pnuemonia, and the relation of these to the phenomena of true inflammation; *Second*, and specially, by reference to the clinical records of the Hospital, to classify a number of reported cases of pneumonia, in all of which death was ascribed wholly or mainly to that disease.

Notice is then taken of the production of congestion and hyperæmia by mechanical means, causing exudation of coagulable lymph into the tissues, and the pathology of lung consolidation as explained by various authorities, Todd, Walshe, Stokes, and Williams, is thoughtfully discussed. The result the author comes to practically is, that the signification of lung consolidation must be sought by means of its attending phenomena, and that "pathological appearances must be interpreted by the light of clinical knowledge."

Nothing can be more true, or more vitally important than this last remark; mere morbid anatomy is of very little use practically, unless it be combined with clinical history as well. The contemplation of a series of morbid products is interesting no doubt, but unless the clinical phenomena of the case during life are faithfully entered into, the chance is, that morbid anatomy will become almost a separate science, with scarcely more bearing on practical medicine than has the science of rocks or fossils.

The truth of the remark that pathological appearances must be interpreted by clinical knowledge is aptly illustrated by Dr. Sturges in case 9 of Table IV. as compared with case 1 of Table V.

In both these cases the pathological appearances after death were strikingly similar, and yet one patient sank gradually as from continued fever; the other died in a few days suffocated by extreme dyspnœa.

In pursuing his laborious work of tabulating, Dr. Sturges soon found that his cases seemed to fall into four classes as regarded their clinical histories. The *first* and largest class comprised those who died of pneumonia in the course of lingering and exhausting diseases of whatever kind. The *second* class would consist of those who had pneumonia come on in the course of fever, or any form of blood-poisoning. In the *third* class are ranged cases of pneumonia from mechanical causes, as for instance, obstructed circulation from valvular disease of the heart, or from vessels obstructed by fibrinous plugging. In these cases consolidation of the lung is often very suddenly brought about by arrest of the circulation and "sudden precipitation, so to say, of the blood" without any inflammatory action.

Many cases of rheumatic pneumonia are of this nature, and are marked clinically by absence of the usual auscultatory sounds of pneumonia.

Lastly, Dr. Sturges speaks of sixteen cases that he ranges as instances of simple pneumonia; these are all he can find in the records of twenty years at St. George's.

In looking over these cases attention is drawn to the constant presence of pleurisy along with the consolidation. Also, it appears that these simple pneumonias do not by any means invariably affect the lower lobes of the lung. In five cases the chief seat of hepatization was at the apex, and in six the whole lung was solidified. Another point brought out by the tables is that they do not contain a single case of hepatization of the *left* lung only with recent pericarditis, while they contain at least ten in which that is the condition with respect to the *right* lung alone.

These observations show how great are the distinctions between the forms of pneumonia, and that as a common term, it ought to be held to mean little more than a certain combination of physical signs, the truth being that its varieties are so distinct as to be like so many different diseases.

Practically, the result of this kind of careful research and observation is most important; its tendency is to make us think less of the name of the disease and more of its true pathology and clinical symptoms, and so to follow a road likely to lead to scientific and sensible methods of cure.

Finally, we would commend Dr. Sturges' pamphlet most strongly to the careful and attentive perusal of all those who would wish to see "pathological appearances interpreted by the light of clinical knowledge."

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

REMOVAL OF EXOSTOSIS FROM SUPRA-ORBITAL REGION.

By Mr. COLLIS.

On Wednesday, Feb. 12, through the courtesy of Mr. Collis, we had an opportunity of witnessing the removal of an ivory exostosis from the supra-orbital region. The patient, a girl of about twenty-four years of age, had a gradually increasing tumour in this situation, dating from her fourteenth year. It appears to have arisen spontaneously. There had been no pain in the tumour, nor was any produced by it, except at periods of occasional discharge of pus from the eyelid, just over the lachrymal gland. There was considerable exophthalmos; a large mass of hard bony material occupied the roof of the orbit, pushing the eye downwards as well as forwards. With all this displacement, vision was perfect. The tumour further projected over the outer angle of the eyebrow in a rounded mass the size of a small hen's egg; a smaller mass occupied the site of the frontal sinuses, and extended upwards on the forehead. As the girl was anxious to have the deformity removed, Mr. Collis, with the consent of his colleagues, undertook the operation. A single incision along the line of the eyebrow laid bare the centre of the tumour. The soft coverings, including the periosteum, were drawn aside upwards and downwards. The frontal nerve was found to be deeply imbedded in a groove or sulcus in the tumour. Mr. Collis reluctantly divided it. With a variety of saws the most prominent portions of the growth were detached. This was a most laborious and fatiguing part of the operation, owing to the excessive density of the bone, which was as hard as walrus tooth ivory. Mr. Collis having removed as much as was practicable with the saws, used the gouge and hammer very freely to carve out the greater part of the mass which lay along the orbital ridge, and which caused the exophthalmos. Numerous small pieces were in this way struck off by repeated blows, until it became a work of much delicacy and some risk. The gouge forceps also was used, but from the great hardness of the material with little effect. The eyebrow having been in these ways carved into a normal shape, the soft parts were brought together by a few pins and harelip sutures. The girl lost but little blood, and was kept under chloroform during the hour which the operation took for its performance.

The eye appeared to return to its proper horizontal plane, though still somewhat in advance of its fellow. Some of this projection was owing to the depth of the tumour in the orbit, and its proximity in this part to the brain, which precluded any interference with the proper roof of the orbit. Some, however, was no doubt due to the swelling, which the necessarily rough handling of the parts produced.

Among the numerous spectators of this difficult and remarkable operation we noticed Mr. Battersby, who just twelve months ago underwent a somewhat similar operation, in the same theatre, at the hands of Mr. Collis. It gives us much pleasure to state from personal observation, that in his case not only was the symmetry of the face restored at the time, but that now after the lapse of twelve months he continues perfectly free from the smallest sign of relapse. It would require somewhat close inspection to discover the cicatrix of the wound.

Mr. Collis stated that although he could not in the case of the girl now operated on, expect freedom from relapse; yet that by removal of so much hard bone from the front of the tumour, it was to be hoped that the balance of resistance to the spread of the disease would be in favour of the roof of the orbit and the brain, and that if the disease did continue to grow, it would be in the forward direction, where, though unsightly, it would be safe. At the same time, from the great density of the material, any new growth would probably be extremely slow in progress.

Subsequent inquiries enable us to state that this patient has recovered from the effects of the operation without a single bad symptom. The wound healed by first intention, with the exception of one corner, from which a moderate amount of healthy pus continues to be discharged. She was kept in bed for eight days as a matter of precaution rather than necessity.

SURGICAL SOCIETY OF IRELAND.

JANUARY 31, 1868.

Mr. COLLES in the Chair.

DR. DAVYS exhibited a recent specimen, being the second finger of the right hand, which had been torn off under the following circumstances :—A robust young man, about 20 years of age, was managing the horses of two carts, and while in the act of tying the rope which connected the head of the second horse to the iron stay on the tail-board of the second cart, his finger got entangled in the loop; the first horse moved on, the second gave a jerk backwards, and in a moment of time the greater part of last phalanx was torn off, taking with it about 13 inches of the tendon.

He felt not the slightest pain. At the time of the injury some hæmorrhage occurred, which a herd immediately stopped by the application of a styptic, which he was in the habit of using to stop bleeding in cattle, simply the ordinary puff-ball. In consequence of the extent of the injury, he thought it advisable to send the man to the Mater Misericordiæ Hospital, where he was under the care of Mr. Tyrrell. So far as external appearance was concerned, no one looking at the arm would imagine that such an amount of injury had been done. Mr. Tyrrell said—"The man complained of no pain ; and the reason they kept him in the hospital was, that the phalanx being torn off a little above the joint, and there being no covering for the bone, it became necessary to disarticulate the stump, so that there might be some soft parts to cover it, and there was not the slightest inflammation in the arm, or any other bad symptom."

OBSERVATIONS UPON CASES OF HERPES ZOSTER.—BY MR. C. J. MOORE.

No.	Initials and Date.	Age.	Previous Health and Present Symptoms.	Part Affected.	Remarks—Residence, if noted, &c.
1	M., a lady's maid, Nov. 24th, 1859.	24?	Lately had dysentery and now tenderness in left inguinal region.	Left side of waist—half round the body.	Sleeps in an underground room, dark, crowded, and ill-ventilated.
2	M'K., a lad, March, 1860.	14	Has much pain at seat of eruption.	Left side of chest and part of epigastrium same side.	Poor and ill-nourished.
3	M., a woman, Nov., 1860.	45	Had pain in May preceding at part now affected. Suffers much pain now also.	Left side of chest and upper part of left epigastrium.	A poor person.
4	Lady's maid, Jan., 1863.	22	Pain—menstruation delayed a week, and only came on with eruption.[1]	Left side of chest.	Of very fair complexion and delicate skin; cannot use fish, nuts, or ale. When taken ill with herpes zoster was with her mistress on a visit at a nobleman's mansion, but slept in a room in the top story, the sanitary conditions of which were not favourable.
5	A girl, May 4, 1865.	11	—	Right side of chest.	
6	Jane D., May 8, 1865.	7	—	Left side of chest and abdomen.	Living in a very unwholesome lodging in Arthur's-lane.
7	A boy, May 23, 1865.	8	—	Left side.	
8	Wm. C., July 29, 1865.	8	Nausea and vomiting before eruption appeared.	Left lumbar and iliac region.	Living in Stephens'-street.
9	An infant, July 29, 1865.	—	—	Left thigh.	
10	A boy, Jan. 9, 1866.	6	—	Left side of chest and abdomen.	
11	H. F., a boy, Jan. 20, 1866.	age not noted.	—	Left side of chest.	Eruption healed, and scaling off upon 27th January.
12	Edward M., Jan. 22, 1866.	12	Pain not complained of.	Over left scapula and in axilla.	Erysipelas prevalent at this time in the same district.
13	Eliza K., March 20, 1866.	40	Subject to (gastric?) pain —unhealthy looking.	On gluteal region, left side.	Experiences severe darting pain in part affected, and down to knee.
14	A child, sex not recorded, Sept. 10, 1866.	12	—	Right side of chest and back.	Living in 8, Church-lane, in a crowded and unhealthy tenement close to St. Kevin's Churchyard.
15	Theresa E., Nov. 7, 1866.	4	—	Right side of chest, abdomen, and back.	Living in 3, Oliver's-alley, a very dirty and unwholesome place, close to stables.
16	Kate B., Nov. 8, 1866.	3	Pain not complained of.	Right side of chest, abdomen, and back.	
17	A young woman, Jan. 12, 1867.	19	Pain not complained of. No irregularity of health.	Left side of chest and back.	

1 See case of recurrent herpes mentioned subsequently.

CASES OF HERPES ZOSTER.—*Continued.*

No.	Initials and Date.	Age.	Previous Health and Present Symptoms.	Part Affected.	Remarks—Residence, if noted, &c.
18	John M., Feb. 16, 1867.	16	—	Left shoulder and arm.	
19	Martin B., July 20, 1867.	7	Just before eruption appeared had severe pain, which caused him to awake crying in night.	Left side, extending from spine round to centre of body.	Living in a cellar in Cuffe-street; unhealthy-looking child—pale, and with red hair. The vesicles are run into one another, being mostly as large as a fourpenny-piece. They are of a purpuric or hæmorrhagic colour.
20	Ann D., 25th Sep., 1867.	19	Menstruation is present; eruption commenced (with pain in heart and itching at part affected) some days before menstruation.	Left side of chest from spine round to front of chest and epigastrium.	Living in top storey of a house in Aungier-street; delicate. Fresh vesicles came out eleven days after eruption first commenced. Menstruation was excessive. Cardiac pain continued during eruption.
21	A woman, E. G., 8th April, 1867.	60	Complains of irritation of eruption.	Across neck and upper part of chest (position upon the latter not mentioned).	
22	Patrick W., 15th April, 1867.	15	Great pain in affected part.	Left side.	Residing in Aungier-street.
23	Catherine C., Aug. 15, 1867.	49	Great pain in the vesicles and in the chest.	Four bluish patches (purpuric) of vesicles on left arm and same side of chest.	Living in ill-ventilated and filthy tenement in Goodman's-lane, a very dirty place.
24	Jas. D., 4th Nov., 1867.	7	A small child for his age: has cough; not much pain from eruption.	On abdomen, hip, and groin, left side. In this case sloughing succeeded the eruption.	Living in a house excluded from light and air by bank of Canal-harbour, Portobello, on a damp ground floor.
25	Jas. S., 30th Nov., 1867.	11	No pain unless eruption be touched, as by clothes.	Left side of chest and upper part of abdomen.	Living in front attic of a house in Bride-street.
26	Matilda R., 17th Dec., 1867.	7	Had fever, and was in Cork-street hospital last April; had pain in bowels some days prior to eruption.	Front and right side of chest, and slightly exceeding mesial line of back; in some parts great pain preceded eruption by some hours, and occurred at night.	Living in attic in Hanover-lane, a confined and crowded locality.

Age.—The average of the 25 cases, whose ages were recorded, was a little over 17 years.

Of the 26 cases of herpes zoster of the neck, trunk, and thigh, one case occurred in an infant, under a year old, one in a girl of three years, and another in one of four years, and one in a boy of six. Four children of seven years of age had the disease; two being boys, and two girls. Two boys of eight years suffered from the affection, as did also a boy and a girl of 11 years. A boy of 12, and a second child of same age, whose sex is not recorded, as well as two lads, aged respectively 14 and 15, presented instances of the disorder, as did also a lad of 16.

Two young women of 19 years, one of 22, and one of 24, as well as four women aged respectively, 40, 45, 49, and 60, afforded some evidence of the more frequent occurrence of the disease in the adult female, than in persons of corresponding age in the other sex.

The exact age of one boy was not noted.

Sex.—In persons at and under 16 years of age, cases far more frequently occurred in males than in females.

I may observe that Mr. Hutchinson of London, who has recently given his experience of the disorder, found, of all ages, 37 males to 26 females. Bateman regarded it as most common between 12 and 25 years of age, the aged he found were not, however, exempt from it, and suffered severely from the accompanying pains.

It has also been observed as more tedious in healing, in advanced life, as might be expected.

In no case have I seen the disease truly encircle the body. Such cases have, however, been recorded; the popular and ancient idea, that such an event would prove fatal, is now exploded.

Season.—Bateman regarded the disease as more frequent in summer and autumn. Of the cases recorded by me, seven occurred in winter, seven in spring, four in summer, and eight in autumn. I should observe that I reckoned winter to include December, January, and February; spring, March, April, and May; summer, June, July, and August; and September, October, and November as autumn.

Side of the body upon which herpes zoster more commonly occurs.—Of my own cases, I find that in twenty it was situated upon the left of the mesial line. In one case, that of a woman (numbered 21) who was 60 years of age—the note I made at the time, states that the eruption extended *across* the neck and upper part of chest, resembling what has been by some authors regarded as an instance of the eruption, as encircling the body. In only five of my cases was the right side affected. I will now quote the following upon the subject:—

	Watson.	Mehlis.	Rayer.	Fenger.	Bärensprung.	Hutchinson.	The Writer. Day.	Total.
On the right side ...	10	16	37	24	24	32	5·3 =	151
On the left side ...	5	9	16	20	32	30	20·2 =	134

Practically we may repeat the statement of Mr. Hutchinson, that "*herpes zoster occurs with equal frequency on the two sides.*"

The state of the blood and urine in herpes zoster, does not seem to afford any constancy according to Rayer, Keller, and Bärensprung.

When the eruption, early in its course, assumes a purpuric appearance, much pain is felt in the part, and as might be expected, a greater proneness to sloughing and tediousness in healing exists.

The premonitory stage of indisposition, the febrile stage, varying in degree, and that of healing and desquamation, have all been so well described by Bateman, that nothing need be added thereto.

The exact nature of the affection appears still, however

shrouded in obscurity, its intimate connection with the state of the nervous system, would appear from the writings of some of the oldest authors upon the subject, many of whom attributed its occurrence to fits of anger, while in recent times, Professor Von Bärensprung, Mr. Wilson, and others, have drawn attention to the intimate relation existing between the seat of the affection, and the distribution of the tegumentary filaments of nerves.

Why the disorder should appear, almost always, only unilaterally, is one of the peculiarities of this affection.

That a certain degree of periodicity attends the pain, which often not only precedes and co-exists with, but frequently remains after, the disappearance of the eruption, rather points to what is generally known as a malarial origin, or as I would prefer to term it, a depraved state of the blood, either endemic or individual, so to speak—and, if I recollect aright, Dr. William Moore has recently expressed somewhat similar views regarding the disease.

That it occurs in persons possessing a sensitive and delicate skin, perhaps, may account for its invariably appearing in but one member of a household, while this very fact would appear to prevent our laying too much stress upon its relation to such external causes as malaria.

In three or four cases I observed an apparent connection between herpes zoster and the periodical changes of females.

Cold temperatures appear to exert a decided influence upon the production of herpes zoster, as evidenced by cases given by Mr. Wilson, Mr. Paget, and others. A case in which a patch of herpes, upon one temple, owing, as the patient thought, to his having slept with that side of his head near to a wet coat, occurred in my practice lately. Von Bärensprung regards sudden changes of weather and youth as propitious to it; he does not think sex influences its production, and he asserts it is not epidemic.

Much difficulty attends the classification of herpes zoster; it does not present the characters of an exanthema, as Mr. Hutchinson says, in its absence of symmetry of constitutional disturbance and of contagion; here, however, I may observe, that, like the eruptive fevers, it is almost never known to occur twice in the same individual. If we regard it as a neurosis, the last-named author well observes, why should it not relapse, and have stages, and how can it protect against a second attack.

Mr. Hutchinson, with much reason, is disposed to regard the disorder as constituting a new group by itself.

Mr. Paget's cases, as mentioned by Dr. Woakes,[1] and the contributions of Hutchinson of London, and of Mitchell Moorhouse, and Keen of America, afford matter of deep interest in connection with the results following injuries to nerve trunks, and the important pathological changes sometimes following herpetic eruptions. It is not my intention in this paper to more than allude to these points; I must content myself by merely observing, that "necrosis of the alveolar border of the jaw" followed neuralgia and herpes of the face, in a case of Mr. Paget's. That iritis, superficial ulceration of the cornea, and much damage to the eye is liable to occur in cases of herpes frontalis, as recorded by Hutchinson.

The American war has afforded some most interesting examples of affections following injuries to nerve-trunks.

Division of the nerve, as in Mr. Hooker's[2] case, may cure cutaneous affections and neuralgia. Other cases of division of the same nerve, the popliteal, followed by recovery in morbid states of the skin and neuralgia, are recorded.

Mr. Hutchinson speaks of "a remarkable form of syphilitic rash, so closely similar in all its features to the true zoster, that it is very possible mistakes may have occurred." This form of disease is always symmetrical, seldom limited to the chest, and does not disappear nearly so quickly as the true shingles.

Treatment.—From my own experience, I am led to recommend warm and mildly astringent applications, if any, in the treatment of herpes. Professor Hebra condemns "the ectrotic mode of treatment, that is to say, the destruction of the individual vesicles by means of nitrate of silver.

He says that any plaster which contains but little turpentine, spread upon long strips of leather or linen, and dusted over with powdered opium, especially if supported by means of a bandage, will, at least, in some cases, relieve the severe pains. He does not put much confidence in the use of internal remedies, though, in some cases, he has known narcotics, with or without quinine, apparently remove the pain.

1 *Journal of Cutaneous Medicine.*
2 *Lancet*, 1859.

I may observe, that an interesting case is recorded by Dr. M. Singer, in which the disease followed all three branches of the fifth nerve, and in which the two senses of touch and taste disappeared, and reappeared in strict unison, thus giving strong corroboration to the idea that the gustatory is a nerve of taste.

Some advocate the local use of chloroform, one or more parts to five of oil, in severe neuralgia with herpes zoster.

Preparations of iron, muriate of ammonia, extract of Belladonna and other remedies, have been recommended internally. Professor Hebra has known the severe pain preceding herpes zoster resemble that of pleurisy, and Mr. Wilson has known pericarditis similated in the same way.

Some have found flying blisters to arrest herpes zoster.

As to internal remedies, my own experience induces me to treat every case on its own merits, endeavouring to correct any error of function, nutrition, &c., as far as possible.

In conclusion, I may add, that herpes zoster appears likely to reward those who will undertake the thorough investigation of the subject, in its practical, physiological, and pathological bearings; affording, as it seems to me, in common with other forms of herpes, a valuable sign of diseased action, whose interpretation we by no means as yet fully understand.

ARMY MEDICAL SCHOOL, NETLEY.

EXAMINATION of Candidates for Assistant-Surgeoncies in H. M. Royal and Indian Armies, held at the close of the 15th Session of the Army Medical School, from 3rd to 8th February, 1868.

A. WRITTEN EXAMINATION (3 hours allowed for each subject).

I. HYGIENE. (Prof. E. A. Parkes, F.R.S.), Monday, 3rd Feb., 1868.

1. Give a general sketch of the construction of barracks in the United Kingdom, as now fixed by regulation, and state how the ventilation is provided for. What quantity of water is allowed per head, and what are the chief points to which you would attend in ascertaining and in maintaining the purity of the supply?

2. What are the meteorological instruments used in the Army Medical Department? What are the thermometrical observations of most importance, and how is the dew point learnt from the readings of the dry and wet bulb.

3. Give a short sketch of the chief conditions at Gibraltar, which might affect the health of the troops.

4. What are the numbers of admissions and the rate of mortality per 1000, in the presidency of Bengal in the early part of this century? What are the rates now? Give briefly an account of the chief causes of the change. Explain *shortly* the causes which affect the ratio of deaths to *admissions* in tropical climates.

II. PATHOLOGY. (Prof. W. Aitken, M.D.) Tuesday, 4th February, 1868.

1. Give the necessary details for determining the *external* measurements of the heart, as you have seen them measured in the post-mortem room. State the average measurements of a normal-sized heart, between the ages of 20 and 40; and give some account of the direct and indirect consecutive diseases or lesions induced by hypertrophy of the heart.

2. Name the general diseases in which pericarditis is apt to occur. Name them as near as you can in the order of its relative frequency of occurrence. Describe the characters of the new material (undation, fluid, and solid) which is enclosed in the sac in the various forms of pericarditis.

3. Description of post-mortem examination, and commentary:—

On the 7th January, 1868, there was an inspection of the body of Patrick John Williams, who died on the 5th January. He had been ill for ten years. He was 35 years old when he died. It is believed he contracted his ailments in the East Indies. He had completed eight years of service—at home from 22nd December, 1859, to 23rd November, 1863, and in the East Indies from that time till 23rd November, 1867, when he arrived at Netley.

He suffered from acute dysentery at Kamptee. On the passage home he became scorbutic.

At home he had previously suffered from primary and secondary syphilis, and his family history told of hereditary phthisis.

He was invalided on account of chronic dysentery, and on admission to Netley, he was in a debilitated and scorbutic state, with symptoms of chronic dysentery. A sycostic bruit was detected at the apex of the heart.

On the 16th December, he complained of difficulty of breathing. On the 20th he became very weak and feverish, and expectorated blood-tinged sputa. Latterly, the pneumonic symptoms declined. On the 1st January, his condition was that of extreme exhaustion, with dullness on percussion over a large area, bronchial breathing, and bronchophony; no cough, nor expectoration. There were bedsores. On the 2nd and 3rd he passed blood *per anum*, the loss of blood being preceded by marked lowering of temperature.

On the 5th January, his respiration became spasmodic, pulse 86, weak and irregular; abdomen tympanitic. Temperature 87° Fahr. Passing blood *per anum* and from nose. Large mucus râles over chest. Became comatose, and died at 10.30 P.M.

Describe the condition.

a. The lungs.

b. The pericardium.

c. The heart; given the measurements of it, and of its orifices.

d. The colon.

e. The liver, spleen and kidneys; and conclude with a pathological summary on the whole case.

III. MILITARY SURGERY. (Prof. T. Longmore, C.B., Dep.-Inspector-General), Wednesday, 5th February, 1868.

1. Enumerate the various articles of equipment which are placed at the disposal of army surgeons, to assist them in the execution of their professional duties, when they accompany troops on active service.

Give a sketch of the system on which the equipment, as a whole, has been arranged, and indicate the special objects of the articles severally.

2. What are the principal sources of danger when the knee-joint has been penetrated by a bullet?

Describe the various modes of treating these wounds which have been had recourse to in recent wars, and the general results of the experience which has been thus gained.

Mention also the results of amputation at the knee-joint, in the French and English armies in the Crimea, and in the northern armies during the war of the rebellion, in the United States of North America.

3. What quality of vision is necessary to enable a soldier to become a good marksman, at all the distances for which the rifle can be adjusted?

How do you diagnose and estimate defects of vision, pathological changes being excluded, which unfit a soldier for becoming a good marksman?

IV. MILITARY MEDICINE (Prof. W. C. Maclean, M.D. Dep.-Insp.-Gen.), Thursday, 6th Feb., 1868.

1. Give a brief summary of the rise and progress of cholera from the year 1817 to the present time.

How does the propagation of the disease appear to be affected

a. By temperature;

b. By rainfall;

c. By excessive dryness;

d. By the wind;

e. By elevation above the sea level;

f. By the agency of water; and,

g. By excessive fatigue, as in the course of long marches?

Give the best account you can of the so-called "Cholera Fungus," more especially with reference to Professor Kallier's experiments and conclusions.

2. What is the most usual premonitory symptom of cholera?

How long should this symptom last to bring it within the proper signification of the term "premonitory?"

Describe the symptoms of a well-marked case of cholera, in the order of their occurrence, distinguishing the stages.

What is Dr. Johnson's theory of the stage of collapse, and by what arguments is that theory supported?

What is the temperature of the surface, and what that in the rectum, in the algide stage?

Describe the intestinal discharges in cholera.

What is the prognostic significance of bloody evacuations?

What are the chief dangers in the stage of reaction?

3. What is the first and most essential measure to be taken when cholera attacks a regiment?

a. In barracks.

b. In the line of march in India?

How are the evacuations of the sick to be dealt with?

Give, to the best of your knowledge, the therapeutic value of

a. Purgatives;

b. Astringents;

c. Opium;

d. Stimulants; and,

e. Saline injections in the treatment of the disease.

B.—PRACTICAL EXAMINATION (Friday and Saturday, 7th and 8th Feb., 1868).

I. MILITARY MEDICINE AND SURGERY (Fifty minutes allowed).

Examine the case of . . .

Write, concisely, a history of the case; your diagnosis, prognosis, the probable effects of treatment, and the influence of the disease (or injury) on the man's fitness for service as a soldier.

II. MILITARY HYGIENE (Three hours allowed).

(Friday) 1. Examination of water.

a. Physical examination.

b. Qualitative; and,

c. Quantitative determination of amount of chlorine, sulphuric acid, and hardness; total, permanent, and removable.

2. Reading of barometer, with corrections.

3. Microscopic examination of specimens of starches.

(Saturday) 1. Examination of water for organic matter.

2. Determination of acidity in a specimen of lime-juice.

3. Microscopic examination of starch.

III. PATHOLOGY (Three hours allowed).

1. Prescribe the five morbid specimens indicated by the letters A, B, C, D, E, and in your description state:—

a. The name and exact limits of the parts embraced in each specimen.

b. The lesions shown by each specimen.

c. The probable effects of the lesions shown by each.

d. The probable causes of the lesions.

2. Examine, microscopically, the portions of texture given for examination. Name the organ of which each is a portion, and describe its morbid condition.

3. Name the objects shown under the microscopes numbered respectively 1, 2, 3, 4, 5, and 6.

Correspondence.

THE BRITISH LYING-IN HOSPITAL AND THE LADIES' MEDICAL COLLEGE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have no wish to involve in law proceedings myself or others, and more especially the conductors of a medical journal, which appears to have been misled by the exparte statements, impudent falsehoods, and dis-ingenious insinuations, which contemporary journals have by some amazing gullability been led into publishing.

But I have a right to protest against the doctrine which underlies the argument in your last number—*i. e.*, that an individual is bound to disprove all the calumnies which malignant people may set afloat, and I assert that it is the duty of a journalist to prove his statements or to retract them. Just now my engagements are so heavy, that it is not possible for me to write so long a communication as would be necessary to rebut the various matters, which your article of February 5th assumes to be true. But I will say:—

1. You go out of your way to speak contemptuously and disparagingly of the "Ladies' Medical College," and the "Female Medical Society," which has commenced and still sustains that college. Now, Lord Shaftesbury is the president of the society, and has spoken most warmly in favour of its objects and operations, in public, on several occasions, and so have many other distinguished men, and among the friends and subscribers of the society there are the names of the Duke and Duchess of Argyle, Archbishop Manning, Mrs. Gladstone, Sir Walter Trevelyan, Bart.; Lord Houghton, Sir Francis Crosally, Bart., M.P.; Mr. Ewart, M.P.; Professor F. W. Newman, and many other distinguished persons. Among the lecturers are Dr. C. J. B. Aldis, M.A., M.D., F.R.C.P., Dr. E. W. Murphy, late of University College, Dr. C. R. Drysdale, and others; and I may add, that neither myself nor any one else have any personal object whatever in the work which we have undertaken to co-operate with. I send by

book-post a roll of pamphlets and prospectuses issued at various times by the society, and fully representing all it has done; and I refer your readers to articles in the *Lancet* of May 26th and June, 1865; the *Medical Times* of August 25th, 1866; the *British Medical Journal* of 1864, Vol. II.; and *Social Science* of September 20th, 1867. And I ask you, as a gentleman, to substantiate your offensive insinuations upon that point, or to retract them.

2. You impute that the Female Medical Society has "by a *coup d'etat* ousted the medical officers from their share in the hospital administration," &c., &c. That imputation rests upon a statement which I can only describe as an impudent falsehood, and I ask you to substantiate it, or retract it. I submit to the consideration of an impartial reviewer upon your staff, the accompanying pamphlet which I have thrown together in great haste, as a confutation of every imputation that Dr. Eastlake has uttered on this matter, and been so greedily swallowed by the *British Medical Journal*, and the *Medical Times and Gazette*. I also submit the statement of *the lady*, Miss Frith, late the matron of the hospital, whom Dr. Eastlake has attempted to ruin; and finally, I submit the notice paper of special general meeting of the Governors of the British Lying-in Hospital, which was held yesterday, and at which *every resolution was passed unanimously;* a hearty vote of thanks being given to the board of management by a very large assembly of governors. I may add that I hold in my hand letters from many distinguished persons promising to attend, *if necessary*, and vote for the alliance of the college and hospital, but which was unnecessary to read.

The two following resolutions were the cardinal ones:—

"1. That the gratuitous services of the students of the Ladies' Medical College be accepted and utilised for the benefit of the patients of the hospital, and that the board of management be requested to arrange for the co-operation of those ladies upon the basis contained in the "DRAFT SUGGESTIONS" submitted by Dr. Edmunds, and that the arrangement be subject to any instructions, modifications, or termination which the governors of the hospital in general meeting assembled may, from time to time, resolve upon.

"2. That in order to promote harmony and success in the working of the hospital, Dr. Eastlake be requested to resign the office of physician, and that, in event of the secretary not receiving Dr. Eastlake's resignation within seven days from this date, the board of management is hereby authorised to remove his name from the hospital staff, and to appoint the requisite number of physicians, *pro tem.*, to assist in the charge of the hospital, and that at the next general meeting in May, it be the business of the governors to proceed to an election for the vacant offices in the medical staff."

The conduct of the *Medical Times* and the *British Medical Journal* in this matter has been so disgraceful, that I need only mention the following facts to ensure their condemnation by all honourable men in the profession, and by all out of the profession, who have the ordinary notions of fair play:—On February 1st, Dr. Eastlake's letter was published at length, containing important personal charges, and imputing direct breach of trust to the hospital board of management. Both journals published at the same time an "adjudication" upon Dr. Eastlake's exparte statements.

2. My reply to that letter.

(*a*). As regards the *British Medical Journal*—a well-known gentlemen of its editorial staff called at my house, and not finding me at home, left a note, asking me to "cut it down to about half." I went over the MS. with an experienced literary and medical friend, and he decided that I could not condense it further without direct mutilation. I therefore returned it, and left the editor to take the reponsibility of inserting or omitting it.

(b). When the replies appeared in the journals I found that both of them had sent on my letters to Dr. Eastlake, in order that he might annex a rejoinder, and this rejoinder they supplemented with further "editorial comments."

(c). Miss Friths reply upon the imputations they had allowed Dr. E. to publish upon her was not inserted at all, but was treacherously placed in the hands of Dr. Eastlake.

3. My second reply to the falsehoods incorporated in Dr. Eastlake's rejoinder they did not publish at all, but the contents of it also had come to the knowledge of Dr. Eastlake; nor do they, either of them, publish Miss Frith's reply.

Now, I submit that honourable journalists when they find that they have made a mistake, and put the saddle upon the wrong horse, do not behave in that way, and as the statements which they have published have been the basis of your comments, I am obliged to ask you to publish this letter with any observations upon the accompanying papers that an impartial review may suggest.—I have the honour to be, sir, your obedient servant, JAMES EDMUNDS, M.D.

4, Fitzroy-square, London, W.
Feb. 15, 1868.

[IN dealing with the controversy as between Dr. Eastlake and the board of the British Lying-in Hospital, we cannot permit the merits or demerits of the Female Medical College to be imported into the discussion. We are by no means disposed to condemn the principle on which the college was founded, and we believe that the suspicion with which the operations of the institution have been regarded by the profession is the result of the unnecessarily offensive tone adopted by its advocates towards a large and highly respected section of its members.

We cannot conceive how the cause of female obstetric education can be served by sneering allusions to "man midwives," unless it be to cater for the petty prejudices of strong-minded women. It is the adoption of this line of argument which has depreciated the Female Medical College in professional estimation, and as long as that institution makes use of such means to achieve popularity with a certain class it cannot expect to enjoy the respect of persons of wide views.

Our statement that "the Female Medical Society by a *coup d'etat* ousted the medical officers from their share in the hospital administration," which Dr. Edmunds designates "an impudent falsehood," is not only specifically stated, but vehemently reiterated by Dr. Eastlake, and as it is a simple contest of veracity, and not at all essential to the main question, we desire to suspend our judgment, in the hope that the reasons which induced the original board to omit, as Dr. Edmund's states, the medical officers from their house list, may come to light, and that the profession may be in a position to say how far the Female Medical College is responsible for that act.

The *gravamen* of Dr. Eastlake's complaint—that the board being desirous of getting rid of him, supported their midwife in having secretly, and in infringement of authority and discipline, applied instruments—has not even been denied, and we need offer no apology for warning the profession to abstain from placing themselves in a position of practical subordination to unqualified female practitioners.—ED. M. P. & C.]

THE END OF AN IMPOSTOR; OR, THE EVENTFUL HISTORY OF AN UNQUALIFIED MEDICAL ASSISTANT.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—On the 29th of January the body of a person unknown, respectably dressed, was found in the river Roding, near Stapleford Abbots, in Essex. It was in an advanced state of decomposition, but at the inquest was identified as that of a man who had slept at the "Blue Boar" at Abridge, on the night of the 16th January. The deceased had previously called upon one of the medical practitioners in the vicinity, and represented himself to be Dr. Scholfield, of Pickering, in Yorkshire.

A person answering the same description, in April, 1867, called upon the medical men in Reading, and told precisely the same story, and indirectly sought pecuniary assistance. I had made inquiries at that time and since, and have no reason to doubt that the person whose body was found in the Roding was the same begging impostor who has been living upon alms derived from the medical profession for several years. His real name was William Rowland Roscoe. After leaving Bolton-le-Moors, in which place he was apprenticed, he became assistant to the late Mr. Cole, of Pickering, with whom he lived about two and a half years, during which time he became addicted to drinking and public-house gambling. He left Mr. Cole, in consequence of a dispute, in 1851, and then commenced a disreputable career assuming at different times the names of "Rowland" and "Kendall," and latterly that of "Dr. Scholfield," a highly respectable gentleman, still at Pickering, who succeeded to Mr. Cole's practice. He appears to have gone out to the Crimea, and to have returned to his mendicant habits after the proclamation of peace.

I have been thus particular in describing Roscoe's career, because he has largely victimized the profession.—I am, sir, yours obediently,

J. BAXTER LANGLEY, M.R.C.S.

50, Lincoln's-inn-fields, W.C.

DR. LETHEBY'S LECTURE ON FOOD.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—If Dr. Letheby were ten times as great an authority on physiology as he is, he would still be amenable to the bar of reason and logic, and inconsistent statements, even though issuing from him, would not be the less inconsistent on that account. Everything which is not food, except air and water, is a foreign body or poison to the animal economy, and therefore injurious to it.

Every substance forming food for an animal must be assimilable by that animal, and capable of entering into the composition of its blood.

Now, Dr. Letheby informs us that *no animal* has the power of *assimulating* mineral elements, when in an inorganic form; consequently, salt, iron, and all other mineral substances in an inorganic state are not food, but foreign bodies or poisons to the system, and not only useless, but theoretically and practically injurious to it. That this is not the case, I defy you, sir, to prove, and as reason maintains the affirmative, the *onus* of proving the negative, if you can, rests with you. The folly of giving iron in cases of anæmia, and lime in cases of rickets, I have seen over and over again proved, by recovery taking place in many instances where neither iron or lime were administered, whilst in others I have seen the patient dosed *ad nauseam* with both of them, without the slightest improvement in the symptoms for which they were so erroneously prescribed.

It is most natural that you, sir, should believe in the necessity of administering minerals in such and other cases, as I presume you have never seen them treated without them, but the experience of those who have is *very different*, knowing as they do that they not only recover without them, but much better than with them.—Your obedient servant,

RICHARD GRIFFITH, Ch.M.

DR. SINCLAIR AND MR. PHELAN.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Though you state in your last issue, at the end of Dr. Sinclair's letter, that "We must here bring the correspondence to a close," I trust you will publish my reply to the several *new* matters which Dr. Sinclair has introduced in that long letter. I have made no attack on Dr. Sinclair, either in the paper in question or otherwise. I am merely defending myself, and I expect to be permitted to reply to that letter through the medium in which it was published. Should you allow me to do so, I shall send you the reply shortly. If you do not, I request you will publish this note in your next issue, that your readers may learn why Dr. Sinclair is not answered in THE MEDICAL PRESS AND CIRCULAR.

February 15, 1868. DENIS PHELAN.

Medical News.

THE MEDICAL SOCIETY OF LONDON.—On Monday, the 2nd March, the general meeting of the Society takes place, for the election of officers and council; after which, Mr. Adams reads a paper on "the treatment of wounds upon antiseptic and subcutaneous principles."

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the quarterly examinations held on the 18th and 19th instants, the following gentlemen passed the second half of their examination for the letters testimonial, and were admitted licentiates of the College, viz.:—George Boyd, Edward Hadden, Edward T. Lloyd, John P. Long, George J. Mackesy, Robert St. John Mayne, Terence J. M'Grath, Andrew M'Munn, William Morrison, Gregory Sale, Robert Spence, Albert J. Watson, and Richard J. Wheeler.

NOTICES TO CORRESONDENTS.

J. COOKE, Esq., Manchester (new subscriber), is thanked. The alteration in address has been attended to.

Dr. SUTHERLAND.—Thanks for enclosure. The journal shall be sent you regularly to Bellingham as requested.

The gentleman who remitted a *Post Office Order* from Worcester, will oblige by forwarding his name and address, that a receipt may be sent in due course.

F. E. S.—We are indebted to you for the interest you have displayed. The back numbers from January 1, 1867, have been dispatched to the address given.

We have to acknowledge the receipt of some specimens of cocoa from Messrs. Cadbury, Birmingham.

THE LATE ELECTION OF CORONER FOR MIDDLESEX.

LEGAL PROCEEDINGS.

WE learn, as we are going to press, that proceedings will probably be instituted by Dr. Hardwicke without delay to quash the election of Dr. Diplock, recorded in another part of our issue, on the allegation that a very large proportion of the votes received on behalf of Dr. Diplock were those of persons not qualified under the Act of Parliament, and therefore illegal.

The majority for Dr. Diplock was only 134; so that if Dr. Hardwicke be enabled to substantiate the statements of his friends, a very much larger number of votes than the majority of the successful candidate will be invalidated.

A CORRESPONDENT forwards to us a communication, which had been received from a Dr. J. Kennedy, of 15 Richmond-street, Portobello, Dublin, which requires an explanation, and one which we trust will be satisfactory and immediate from that gentleman.

It appears that the following advertisement has lately appeared in the Dublin *General Advertiser*:—

"MEDICAL ASSISTANTS, Qualified and Unqualified, having satisfactory references can be suited with situations in England on moderate terms. Only a few days notice required, when most eligible vacancies can be obtained by application to."

To this notice a provincial surgeon replied, asking for information, when, after a week's delay, he received the following note:—

"15, Richmond-street, Portobello,
"Dublin, January 27th, 1868.

"DEAR SIR,—In reply to yours of 23rd inst., I have several in-door and out-of-door vacancies for medical assistants, qualified and unqualified, in England. My terms for each successful engagement are £2 2s., paid in advance. By hearing from you, enclosing me a remittance amounting to the above fee, I shall at once put in force your request, and let you know all particulars by return, &c.—Faithfully yours, "JAMES KENNEDY."

Very reasonably considering it an unusual course for a medical agent to advertise under assumed initials, and to require payment of a fee of £2 2s. in advance, the gentleman wrote to a friend in town as to the reliability of Dr. Kennedy, and the negotiation, of course, went no further.

We should be glad to be informed by what means Dr. J. Kennedy expected to be able to obtain the English assistantships which he advertised that he could provide, and for which he required payment in advance; and we venture to say, that unless he possesses some facilities for negotiating such appointments, the fact of his publishing, and communicating by letter the statements which he has made, requires the most serious attention of the licensing body to which he belongs. The letter addressed by him to his provincial correspondent is written on the fly-leaf of a trade circular, from which we take the following extracts:

"SURGERY, 15, Richmond-street, Portobello (opposite Lennox-street) Dublin. Dr. J. Kennedy respectfully intimates to his patients and the public generally, that he continues to practice at the above address, where he may be consulted professionally. He would pay the most diligent and prompt attention to communications by letter, where his attendance or advice and medicine would be required.

"Dr. Kennedy having had considerable experience in Dental Surgery, would be most happy to afford his services to any patients suffering from affections of the teeth or gums.

"Dr. J. Kennedy attends on all cases of midwifery on moderate terms. He vaccinates children with the most pure and genuine infection, which he obtains specially from the Home Department, Whitehall, London.

"A legal certificate of each successful case of vaccination is given to the parents or friends of children.

"A private surgery is attached, where medicines are specially and carefully compounded for patients, under the direct superintendence of Dr. Kennedy; nothing used but the purest and most genuine ingredients and chemicals.

"As the best guarantee for his qualifications and capabilities, Dr. Kennedy appends testimonials in his favour from several of the most eminent physicians and surgeons."

To this precious document are appended testimonials from hospital physicians and surgeons of the very highest eminence in Dublin. We are well aware that these gentlemen would repudiate the use of their names in connection with so disreputable a transaction, and we therefore refrain from specifying the names, feeling convinced that they will take immediate steps to disassociate themselves from Dr. J. Kennedy and his proceedings.

Communications with enclosures received from Rev. W. Shearley, Wells; T. Corbett, Esq., Kingstown; Dr. Letheby, London; Dr. Horace Dobell, London; Dr. Beale, London; F. Todd, Esq., Horncastle; J. Birchnall, Esq., Macclesfield; Dr. Clark, Staines; Dr. Clay, Stratford; Mr. Copney, London; Mr. Collier, Newport; Mr. Peter Squire, London; Mr. Daniel Stoney, Stratford; J. Collingwood, Esq., Corley; Mr. Couchman, Bedford; Dr. B. W. Foster, Birmingham; W. B. Calcott, Esq., Oundle; C. E. Covey, Esq., Basingstoke; Dr. George Buchanan, Glasgow; Mr. F. Smith, London; Dr. Mitchell, London; Mr. Voorst, London; J. Parker, Esq., Hanmer (with enclosure); Mr. Barker, London (enclosure); Mr. Davenport, London (enclosure); Dr. Kidd, London; Mr. Black, Edinburgh (enclosure); Professor Humphrey, Cambridge; Mr. R. Freeman, London (enclosure); Dr. E. Chenhalls St. Just; Henry Chandler, Esq., London; Dr. Small, Rome; Mr. G. Cockle, St. John's; J. Cooke, Esq., Manchester; Dr. Edmunds, London; R. Ruding, Esq., London (enclosure); G. Macilwain, Esq., London; Dr. Sutherland, Bellingham (enclosure); Dr. Tomkyns, Calcutta; J. W. Parsons, Esq. (enclosure); Dr. Pye Smith, London; Dr. Oppert, London; Dr. J. G. Thornley, Newry; R. Wallace, Esq., Staneley; G. Cheesman, Esq., Southampton; Mr. Cadbury, Birmingham, (enclosure); Mr. Grace, Bristol (enclosure).

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

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Lecture.

THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S SECOND LECTURE ON FOOD.

COMPARATIVE DIGESTIBILITY OF FOODS—FUNCTIONS OF DIFFERENT FOODS.

(Continued from page 176.)

IT may be said, and truly, that these experiments of Fick and Wislicenus were of too short a duration to afford an opportunity of ascertaining whether the oxydized muscle was not afterwards excreted; but the recent researches of Dr. Parkes on the elimination of nitrogen by two healthy men (soldiers) in the prime of life, during a period of seventeen days, and under different conditions of diet and exercise, have shown that, although the results are not altogether accordant with those of Fick and Wislicenus—yet the conclusions are certainly born out, that a non-nitrogenous diet will sustain the body during exercise for a short time, and that exercise produces no notable increase in the nitrogen of the urine. On the contrary, the amount of urea is actually less during work than at a period of rest; and he thinks that the muscle, instead of oxydizing, and, therefore, losing its substance during labour, actually appropriates nitrogen and grows—its exhaustion being dependent, not so much on its decay, as on the accumulation of the oxydized products of hydrocarbon, as lactic acid, &c., in its tissue, which require rest and time for their removal. That some decay of the muscle takes place, there can be no doubt; for, as Dr. Parkes observes, "although it is certain that very severe exercise can be performed on non-nitrogenous diet for a short time, yet it does not follow that nitrogen is unnecessary. The largest experience shows, not only that nitrogen must be supplied, if work is to be done, but that the amount must augment with the work. For a short period the well-fed body possesses sufficient nitrogen to permit muscular exertion to go on for some time without a fresh supply; but the destruction of nitrogenous tissues in these two men is shown by the way in which, when nitrogen was again supplied, a large amount was retained in the body to compensate for previous deprivation." It would seem, too, from the great exhaustion of the men on the second day of a non-nitrogenous diet, that their muscles and nerves were becoming structurally impaired, and that if the experiments had been continued for a third day there would have been a large diminution in the amount of work. The work which they actually performed on a non-nitrogenous diet of starch and butter, in the form of biscuits and arrowroot, was walking exercise of 23·76 miles the first day, and 32·78 the second. The first day's work occupied, with intervals of rest, about ten hours and three-quarters, and it was done without fatigue; but the second day's work took twelve hours, and the last thirteen miles were accomplished with great fatigue. Calculated according to Haughton's formula, (that walking upon a level surface is equal to lifting 1-20th of the weight of the body through the distance walked), the labour in the two days was for—

	S. Weighing with clothes 162·4 lbs.	T. Weighing with clothes 124·2 lbs.
The first day ...	1,018,676 ft.-lbs.	779,062 ft.-lbs.
The second day ...	1,405,397 „	1,074,817 „
Total work ...	2,424,073 „	1,853,879 „
Total nitrogen excreted...	529·16 grains.	492·46 grains.
Equal to muscle oxydized	3386·92 „	3151·74 „
The energy of which (minus urea) is ...	3,267,361 ft.-lbs.	3,040,483 ft.-lbs.

The amount of nitrogen excreted during the time of actual exercise was only about half the above; and, calculated in this way, it would only account for about two-thirds of the labour-force. The results, therefore, prove that although the basis for the calculations of Fick and Wislicenus was too narrow for accurate deductions, yet the mechanical force of the oxydized muscle is not sufficient to account for external and internal work; and the conclusion is that in the above experiments the motive power of the muscles was not derived from their own oxydation, but from the oxydation of non-nitrogenous matters. The researches of Dr. Edward Smith throw additional light on the subject, for he ascertained that the amount of carbonic acid exhaled by the lungs was in proportion to the actual work performed.

During sleep it was at the rate of ...	293 grs. per hour.
When lying down and approaching sleep...	355 „ „
In a sitting posture	498 „ „
When walking two miles an hour ...	1088 „ „
When walking three miles an hour ...	1552 „ „
And when working at the treadmill ...	2926 „ „

It is highly probable, therefore, that the largest amount of muscular force is derived from the hydro-carbons of our food; not that the nitrogenous matters of it may not also be a source of power; but there is no necessity, as Liebig supposes, for their being previously constructed into tissue. The experiments of Mr. Savory show that rats can live and be in health for weeks on a purely nitrogenous diet, and it is nearly certain that under these circumstances the nitrogenous matters are mostly oxydized without entering into the composition of tissue. This, as I have said, is the main point of divergence from the hypothesis of Liebig; and it is further indicated by the fact that the amount of nitrogen excreted is not in proportion to the work done, but to the quantity of it in the food, even when there is no muscular exertion.

That the chief functions of nitrogenous matters is to repair tissue, there can be no doubt, for animals kept on a purely carbonaceous diet quickly lose weight, and at last die from a disintegration of tissue; but it is equally certain that the nitrogenous constituents of food have other offices to perform. A daily diet of 2lbs. of bread contains enough nitrogen to supply the mechanical wants of the system, but it will not maintain life. There is required an addition of animal food to render it sufficient for this purpose; and indeed the instincts and habits of the human race show, beyond all question, that a comparatively rich nitrogenous diet is necessary for the proper sustenance of life; and it is very probable that it assists the assimulation of the hydrocarbons. In this way it may help in the development of force without itself contributing directly to it; and this may serve to explain the fact, that there is a relation between the amount of nitrogen contained in the food and the labour value of it. Carnivorous animals are not only stronger and more capable of prolonged exertion than herbivororous, but they are also fiercer in their disposition, as if force were superabundant. The bears of India and America, says Playfair, which feed on acorns, are mild and tractable, while those of the polar regions, which consume flesh, are savage and untamable; and taking instances of people—the Peruvians whom Pizarro found in the country at its conquest, were mild and inoffensive in their habits, and they subsisted chiefly on vegetable food; whilst there brethren in Mexico when found by Cortes, were a warlike and fierce race, and they fed for the most part on animal diet. The miners of Chili, who work like horses, also feed like them, for Darwin tells us that their common food consists of bread, beans, and roasted grain.

The Hindoo navvies who were employed in making the tunnel of the Bhore Ghat Railway, and who had very laborious work to perform, found it impossible to sustain their health on a vegetable diet, and being left at liberty by their caste to eat as they pleased, they took the common food of the English navigators, and were then able to work as vigorously. Abundant examples of this description—some of which will be further discussed as we proceed, may be cited in proof of the direct relation of plastic food to mechanical work; but there is no proof that this material must first form tissue before its dynamical power can be elicited.

It is, however, a remarkable fact that all forms of nitrogenous food have not the same nutritive value; the glutinous matters of barley and wheat, though almost indentical in chemical composition, have very different sustaining powers. It is the same with muscular flesh and artificially prepared fibrin and gelatine. Magendie found that dogs fed solely, for 120 days, on the raw meat from sheep's heads, preserved their health and vigour during the whole of the time; but more than three times the amount of isolated fibrin, with the addition of much gelatine and albumen, were insufficient to preserve life.

We may conclude, therefore, that while the main functions of nitrogenous matters are to construct and repair tissue, yet they have manifestly other duties to perform, of an assimilative, a respiratory, and force-producing quality which are far from being understood. What do we know, indeed, of the actual *modus operandi* of the nitrogenous ferments—ptyalin, pepsin, pancreatin, &c., which are secreted so abundantly into the alimentary canal; or of the conjugate nitrogenous compounds which are present in the bile? and how far have we advanced in interpreting the functions of the nitrogenous constituents of tea, coffee, maté, guarana, cocoa, &c., which the instincts of mankind in every part of the globe have evidently chosen for some physiological purpose? The same may be said of the crystalline nitrogenous matters of soup——as creatin, creatinin, inosic acid, &c., which can hardly be regarded as foods, although they have powerful sustaining properties. But enough of this for the present; and before leaving this part of the subject, I would direct attention to the fact, that nitrogenous matters when oxydised in the animal body never yield up the whole of their potential energy, for by being converted into urea, which is the chief product of their decay, there is at least a seventh part of their power lost in the secretion. It may be that this is a necessity arising out of the circumstance, that if they were completely oxydised in the animal body and converted into carbonic acid, water and nitrogen, the last named gas would be unable to quit the system, because of its insolubility in the animal fluids.

Functions of Fat.—The hydrocarbons, which go by the name of fat, differ from other hydrocarbons, as sugar and starch, in the circumstance that the oxygen is never in sufficient quantity to satisfy the affinity of the hydrogen; and, therefore, it is more energetic as a respiratory or heat-producing agent. Its power, indeed, in this respect, is just twice and a-half as great as that of starch or sugar; for 10 grains of it will, by combining with oxygen, develop sufficient heat to raise 23·2lbs. of water, one degree of Fahrenheit, and according to the deductions of both Joule and Meyer, this is equivalent to the power of raising 17,923lbs. one foot high. In cold countries where animal warmth is required, food rich in fat is always preferred; and the fat bacon of the English labourer contributes in no small degree to the production of mechanical force.

But besides this, fat serves important functions in the processes of digestion, assimilation, and nutrition. According to Lehmann, it is one of the most active agents in the metamorphosis of animal matter; and this is seen not merely in the solution of nitrogenous articles of food during digestion, but also in the conversion of nutrient plastic substances into cells and masses of fibre. Elsässer long since observed that during the process of artificial digestion, the solution of nitrogenous foods was considerably accelerated by means of fat; and Lehmann has since determined by actual experiment on dogs, that albuminous substances deprived of fat remain longer in the stomach, and require more time for their metamorphosis than the same substances impregnated with fat. It is probable, indeed, that the digestive power of the pancreatic fluid is due in great measure to the presence of fat; and that the subsequent chymification of food, and its absorption into the blood, is greatly assisted by it. There is also good reason for believing that it is largely concerned in the formation of bile, and that the biliary acids are conjugated fatty compounds. This may account for the well-known action of fat bacon, and other such foods in the secretion of bile.

The digestive power of fat is certainly considerable; and it is no less active in the subsequent conversion of nitrogenous matters into cells and tissues, and perhaps also in their retrograde decay. Colourless blood corpuscles receive perhaps the first impulse of their formation from the metamorphosis of fat; and thus it is an important aid in the genesis of blood. It would appear, too, from the latest investigations of physiologists that it plays an equally important part in every kind of cell development. Acherson showed, as far back as 1840, that albumen always coagulates from its solution around a fat globule, and this is seen in the little fatty particles of milk which have a covering like a cell-wall of consolidated casein. Hunefield, Nasse, and others, have further shown that the nucleoli of cells invariably consist of fat, and that recently formed

plasma always contains more fat than the mature cell. The conclusion, therefore, is that it takes an active part in all the processes by which the nutrient constituents of food are converted into the solid substrata of organs, and so energetic are its powers in this respect, that when the nitrogenous matters of the fluids are not in sufficient quantity to form cells with the fat, it borrows the material from muscular or other tissues, and thus produces a fatty degeneration of the part. This is observed in the muscular structures of over-fed animals, in the tissues of drunkards, who take a large amount of fat-forming food, and in the livers of geese that are crammed with a farinaceous diet.

And not only is it concerned in the formation of new tissue, but it also pervades, and finally disintegrates the older structures, especially when the vitality of them is low. In this manner it helps in the solution and subsequent removal from the animal body of decayed and morbid products of the protein type.

Again, its presence in large quantity in the tubules of nerves, and in the ganglionic centres, would indicate that it performs some highly important functions in nervous action.

And lastly, the distribution of it in the tissues, and the accumulation of it around certain organs, serve to fill up the vacuities of the body, to give rotundity to the form, to equalize external pressure, to diminish the friction of parts, to give suppleness to the tissues, and by its bad conducting quality to retain the animal warmth. Fat, therefore, must always enter largely into the composition of our food, for other hydrocarbons though capable of transformation into fat cannot entirely take its place.

3rd. *Starches and saccharine substances.*—These are well called hydrates of carbon, for the oxygen and hydrogen contained in them are nearly always in the proportion to form water. The carbon, therefore, is alone capable of oxydation, and according to Liebig their functions are entirely calorific or respiratory; but, like other heat-producing agents, they must also have mechanical power, for everything that will raise the temperature of a pound of water one degree of Fahrenheit will by another modification of its action raise 772 lbs. a foot high. These, indeed, are the thermotic and mechanical equivalents of Meyer and Joule. The energies, however, of this class of substances are not nearly so great as with fats, for in the last case, as I have said, there is much available hydrogen, as well as carbon, for oxydation. The diagram which is before you will make this clear.

CALORIFIC AND MOTIVE POWERS OF 10 GRAINS OF THE SUBSTANCE IN ITS NATURAL STATE.

	Lbs. of water raised 1° Faht.	Lbs. lifted one foot high.
Grape sugar	8·4 ...	6477
Lump sugar	8·6 ...	6617
Arrowroot	10·0 ...	7731
Butter	18·6 ...	14358
Beef-fat	20·9 ...	16131

So that, in round numbers, the calorific power of fat is about twice as great as that of starch and sugar, and when dry it is twice and a-half as great.

But these substances have other duties to perform besides the development of animal heat, which is, in fact, the final product of their oxydation, for on becoming changed into glucose by digestion they take the form of various acid compounds, as lactic acid, which occurs in the stomach and in the juice of flesh; butyric, formic, and acetic acids, which are found in the perspiration. The exact functions of these acids are not known to us, although, as I have already explained, the presence of lactic acid in the stomach is essential to the digestion of nitrogenous matters; and perhaps also its occurrence in the juice of flesh is for a similar object—namely, the solution of effete tissues.

Starches and sugars are also concerned in the production of fat. This was once the subject of an animated discussion by Liebig and Dumas, whose views of it were in complete antagonism; but the experiments of Boussingault, Persoz, Lawes, and others, on the feeding of animals, have proved beyond all question that fat may be derived from the hydrates of carbon, and that therefore the views of Liebig were correct. Common experience, indeed, has fully taught us that foods which are rich in farinaceous matters and sugar, are very capable of producing fat.

4th. The *saline* or *mineral* constituents of food are largely concerned in the metamorphosis of matter; and, perhaps, this is their sole function. It is a specialty of these substances to give a soluble form to the plastic constituents of food, and of the animal tissues. They are, therefore, concerned in the phenomena of digestion, absorption, sanguification, assimilation, disintegration, and secretion. In truth they are the chief, if not the only, media for the transference of organic matter from place to place in the animal body—being on one hand the purveyors of nutrient materials into the system, and on the other the carriers of effete substances out of it: besides which, it is very probable that they are the agents whereby liquid colloidal forms of nutriment are changed into solid or pectous, as in the formation of solid tissues from the blood. In the case of digestion and absorption the plastic elements of our food, as albumen, fibrin, gelatin, &c., are not of themselves capable of dialysis, or of passing through the walls of the alimentary canal; and, therefore, absorption must be assisted by some physical agent. This agent is the highly diffusive acids and salts, which are secreted so freely into the stomach during digestion; and it is very probable that they not only effect a solution of the proteinaceous matter of food, but by converting it into peptones, as Lehmann expresses it, they also change the molecular form of the material, and make it pass from an unabsorbable colloid, into a highly diffusive crystalloid. If, indeed, it be, as Mr. Graham supposes, that a colloid molecule is but a group of smaller crystalloids, the action of the saline and acid constituents of the gastric juice might be to break up the larger colloid molecule, and thus give it the property of diffusion and absorption. An opposite condition of things would occur in the alkaline blood, whereby the colloid molecule would regain its structure, and lose its diffusive tendency; but coming to the tissues, where an acid condition of the fluids again exists, it once more changes its molecular structure, and quits the blood to serve the purposes of nutrition. The exact nature of the phenomena that occur when the liquid nutrient matter which thus escapes is changed into solid tissue is unknown to us; but there is good reason for believing that it is no more than a molecular movement effected by the agency of saline matter. In the case of certain structures which contain more than a common amount of mineral salts, this is unquestionably so; for it occurs in the consolidation of the spiculæ of sponges, the calcareous tissues of polypes, the hard dermal structures of the radiata, mollusca, crustacea, &c., and in the calcareous deposits of bone, teeth, tegumentary scales, egg-shells, &c., of the vertebrata. In all these instances the secreted matter must first have been crystalloidal, or it could not have been secreted; it then takes the form of a liquid colloid or jelly; and finally, by a further molecular movement, it passes into the condition of a pectous solid—the saline constituents, according to their nature and proportion, determining the degrees of hardness.

Again, the removal of effete matters, and worn-out tissues, is undoubtedly effected by the agency of saline substances; for, during the processes of oxydation, acid compounds are produced, which by acting chemically on the saline constituents of the animal fluids, give them a solutive power on plastic matters, and thus enable them to remove the debris of worn-out tissue.

(To be continued.)

THE number of soldiers or Royal Marines serving in Great Britain and Ireland who have been flogged since the 12th of April last is as follows:—In the Army (to the 31st of December, 1867), 17; in the Royal Marines (to the 12th of December, 1867), 2.

Original Communications.

DESCRIPTION OF A TUNNEL-HANDLED DOUBLE-BLADED STRICTURE DILATOR, AND TUNNEL-HANDLED SINGLE-BLADED DILATOR AND URETHROTOME CONDUCTOR.

By B. WILLS RICHARDSON, F.R.C.S.I.,

EXAMINER IN THE ROYAL COLLEGE OF SURGEONS, AND SURGEON TO THE ADELAIDE HOSPITAL, DUBLIN.

I PUBLISHED in this journal, on the 20th of last November, the description of a "Stricture Dilator, constructed upon the Dovetail Principle."

In that instrument the handle is formed like the Perrève handle, which is well adapted for preventing wriggling of the conducting-rod, during the process of forced expansion, provided the grasping of the half-handles is sufficiently firm to maintain the forcer in their grooves, as it glides along them.

It is almost superfluous to observe, that tolerably firm pressure applied to the half-handles of the English modification of the Perrève dilator, at present in use, is as necessary, when the forcer is passing between them, as it is with the original Perrève instrument.

Now, the dilator which I described in November last, is so free from risk, during the divarication of the blades, in consequence of the forcer being very accurately retained in a central position, by its dovetailing with the lower blade, that the application of firm pressure to the handle end of the upper blade is not necessary. Indeed, the dovetail dilator may be safely and securely worked, without any handle pressure whatever to the upper blade. Nevertheless, it appeared to me that a handle, capable of allowing the application of slight pressure to the upper blade, for the purpose of facilitating the placing of the dilator in its case, and also for retaining the blades together during the introduction of the instrument, might be advantageous. I, therefore, designed a tunnelled-handle, in which the pressure can be regulated to a nicety by means of two screws. This handle does not allow of any finger pressure being applied to the forcer, through the intermedium of the upper blade; and the latter being T shaped posteriorly, is thereby prevented from going forward with the forcer, owing to the circumstance, that the arms of the T play against the corresponding uprights of the arch of the tunnel (Fig. 1, plate).

The posterior end of the lower blade is soldered in a groove, formed for it the whole length of the floor of the tunnel.

The tunnelled-handle made for me by the Messrs. Weiss is wrought in steel and silver, the ends and floor of the arch being formed of the first material, the remainder of the latter; but silver is not essential for its construction.

I have caused the vesical end of the dilator to be made bulbous (Fig. 2, plate), and have transferred the opening for the urine from the point to the convexity of the curve. The bulbed point facilitates the introduction of the dilator.

The curve should not be too abrupt. The dilator, in fact, should be nearly straight.

I have been trying a variety of forms of forcer. Fig. 3 in the plate represents vertical sections of some of the most useful shapes. As for myself, I prefer the low and broad forcer, it is so perfectly secured against lateral tilting, by resting upon and grasping, as it were, the lower blade at each side of the longitudinal slit.

The narrow forcer requires to be made a little deeper than the broad one, to produce an amount of dilatation equal to the latter. The groove of the upper blade must be very accurately adapted to the upper edge of the narrow forcer, which it should slightly overlap. The two sections of narrow forcers represented in figure 3 (plate) have not been drawn deep enough to show the proportion they should bear to the broad ones.

The Perrève and the tunnel-handled dovetail dilators, are both made by the Messrs. Weiss; but the tunnel-handled instrument is so complete in every respect, that it is the one I recommend.

THE DOVETAIL URETHROTOME CONDUCTOR AND SINGLE-BLADED DILATOR.

A conductor similar in principle to the lower blade of the double-bladed dovetail dilator, forms an excellent director for the urethrotome, the latter being adapted to the single blade by means of the dovetail arrangement (Fig. 4, plate).

If the urethrotome and the conductor are properly fitted to each other, the groove of the latter will pilot the urethrotome to a stricture with precision and safety. The Dovetail Conductor is, therefore, free from the risk incidental to the use of many of the instruments, designed for cutting strictures from before backwards.

The Messrs. Weiss have made a conductor of this description for me. It, likewise, has a tunnelled handle, which is constructed of materials similar to those of the Double-Bladed Dilator. This conductor is of small calibre, being only 1½, 2, and 3 (Weiss' guage), from point to handle. The point may be made bulbous.

In the convexity of its curve, there is an opening to permit the escape of urine into the conducting groove, and thus to indicate when the instrument has entered the bladder.

The urethrotome for the Dovetail Conductor, has, along its lower edge, a male dovetail, adapted for gliding along the groove of the conductor, and of sufficient calibre to prevent it from rising out of the groove (Figs. 5, 6, and 7, plate).

The lower edge of the cutting-blade is also dovetailed, so that when it is sheathed, its dovetail appears to be continuous with that of the sheath (Fig. 7, plate). By this arrangement of the knife, it is maintained in a position, perfectly central, when it is pushed forward to divide a stricture.

In the posterior steel arch of the handle of the conductor, there is a screw, for rendering the sheath immovable, when its vesical end has reached the stricture (Fig. 4, plate).

In order to ascertain whether the stricture has been completely divided from before backward, the knife is to be retracted within its sheath, the screw loosened, and the sheath is then to be pushed forward towards the bladder.

The dovetailed conductor may also be used as a dilator: but, is not adapted for such rapid dilatation, as the double-bladed instrument is capable of effecting. In Fig. 4 (plate), is represented the form of forcer essential for the single blade.

Four forcers, at least, should be supplied with the dovetailed conductor, viz:—Nos. 4, 7, 10, and 13 (Weiss' guage). The increase of each forcer in calibre, from before backwards, should be very gradual, in order that they may the more easily enter the stricture, and not push it before them.

I by no means wish it to be thought, that I consider the single-bladed dilator calculated to supersede the double-bladed instrument. I designed it originally as a conductor for the urethrotome. The idea struck me, however, that if the forcers are shaped as above directed, (Fig. 4, plate[1]), it may, in careful hands, be used as a *slow* dilator, provided the surgeon takes the precaution of holding firmly, both the glans-penis and tunnelled handle, while he is gradually insinuating the forcer into, and dilating, a stricture. For, should he neglect to keep the glans fixed and well-forward, the stricture will recede before the wedge, and he will fail in getting into the narrowed part.

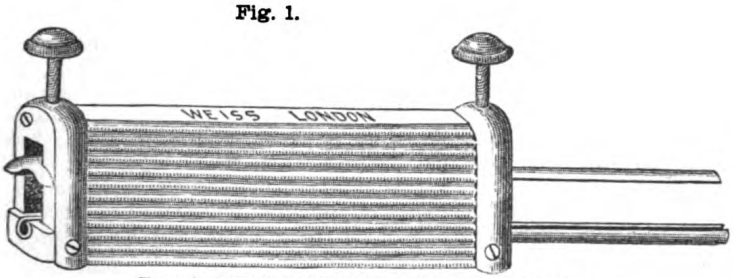
The bulbed vesical end of the dilator can be easily fitted with either a movable long, or a short, gum-elastic guide, by means of a screw arrangement. The bulb being hollowed for the reception of the male screw, attached to the gum-elastic guide. One of Perrève's models has a somewhat similar arrangement.

All the above described instruments are kept in stock by Messrs. Fannin and Co., the Messrs. Weiss' agents in Dublin.

1 The Engravings by the Messrs. W. and A. Oldham, Dublin.

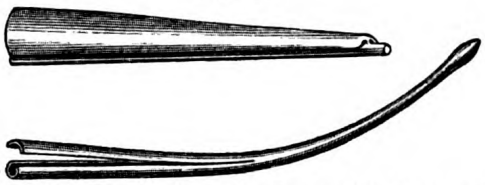
THE DOUBLE AND SINGLE BLADED TUNNEL-HANDLED, DOVETAIL DILATORS, AND URETHROTOME.

Fig. 1.



Tunnelled Handle of Double-bladed Dovetail Dilator.

Fig. 2.

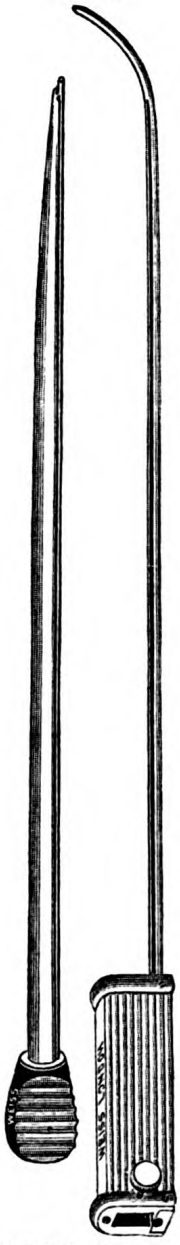


Vesical end of Forcer and bulbed end of Double-bladed Dovetail Dilator.

Fig. 3.

Vertical Sections of Forcers suitable for the Double-bladed Dovetail Dilator. The narrow forcers should be deeper vertically than the broad ones. Those in the figure are not represented of the proper relative depth.

Fig. 4.



Tunnelled Handle of Single-bladed Dilator or Urethrotome Conductor, with separate forcer.

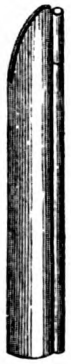
Fig. 5.

Dovetailed Urethrotome.

Fig. 6.

Urethrotome blade protruded.

Fig. 7.



Urethrotome blade sheathed.

MR. B. WILLS RICHARDSON'S CONTRIBUTIONS TO SURGERY.

NEURALGIA:

CASES TREATED SUCCESSFULLY BY THE SPINE-BAG.*

By JOHN CHAPMAN, M.D., M.R.C.P., M.S.C.S.,
PHYSICIAN TO THE FARRINGDON DISPENSARY.

THE cure of neuralgia, whether the disease be treated by drugs given internally, or by applications of various kinds at the seat of pain, or by the two methods conjointly, is confessedly almost always difficult, and in a large proportion of cases impossible. The cases reported below have been treated by a method altogether new. By stating each case with extreme brevity, I am enabled to present at one view within a small compass the results of several experiments; and I do this in the hope that they may produce such an impression on the minds of professional readers as may impel them to acquaint themselves with the pathological and therapeutical principles of which these results are an expression. I shall hereafter publish an exposition of those principles, illustrated by reports of cases *in extenso*, and shall then give a full description of the treatment adopted.

1. *Facial Neuralgia.*—T. H., a gentleman, aged 35, who had been suffering during the previous fortnight, requested my advice March 18, 1865. He was in great pain, which had been continuous from the previous day, and which had wholly deprived him of sleep. The pain was chiefly on the right side of the face and head; but during the morning preceding my visit the left side had become invaded. The affected parts were very tender, and somewhat swollen. The head was rather hot, the face flushed, the tongue thinly coated with whitish fur; pulse 92, full and strong. Several medicines prescribed by two physicians in succession had proved of no avail.

I applied a ten-inch spinal water-bag, containing water at 130° F. to the cervico-dorsal region, and shortly afterwards left the patient's room. Within half an hour I returned, when I found him asleep. The treatment was continued for two days by means of heat; afterwards I used ice (at first in the lumbar region), and from the time he first fell asleep he continued free of pain, which has not since returned.

2. *Facial Neuralgia.*—Fräulein S., aged about 25, consulted me February 3, 1867, on account of neuralgia affecting the infra-orbital and dental branches of the trifacial nerve. The pain was not confined to one side of the face, but was sometimes most acute on one side, sometimes on the other; it increased at night, and kept her awake the greater part of each night. She had been suffering in this way for about three weeks before I saw her. Her general health was good. The affected parts presented no trace of hyperæmia.

She was treated by means of ice, and experienced almost immediate relief. After three days of treatment she felt, and slept, very much better; and before the end of the fifth day the pain had wholly ceased. Nearly a year afterwards she told me that it had never returned.

3. *Facial Neuralgia.*—Mademoiselle M., æt. 20, consulted me in August 1867, when she was suffering from acute facial neuralgia, the chief foci of which were the infra-orbital foramen, and the mental foramen of the right side. The extreme pain came on in fits, sometimes at 8 A.M., sometimes at 2 P.M., but between the paroxysms the face continued to ache, and at times the patient had pain at the back of the head. She had suffered in this way about a fortnight before coming to me, and had had several similar attacks during the preceding year.

The treatment consisted in the application of the double columned hot water-bag. The malady was immediately subdued: no distinct paroxysm occurred after the first application of heat; all pain rapidly and completely subsided, and since that date has not returned.

4. *Dental Neuralgia.*—A. W. B., a Russian gentleman suffering from dental neuralgia, consulted me in September, 1867. The malady was chiefly confined to the teeth of both upper and lower jaw, but no particular tooth or teeth seemed to be especially affected. The pain was intermittent, and so severe as to interfere seriously with the patient's daily occupation. No cause of the disorder, which had continued some weeks, could be discovered, and the face so far from showing any sign of hyperæmia over the seat of pain, seemed cooler than normal. In the course of the first day of treatment by means of the spinal ice-bag, the pain was completely subdued; the cold was persisted in for some time, and during the remainder of the patient's stay in England he continued free from suffering.

5. *Dental Neuralgia.*—H. E., female, aged 21, suffering from violent and continuous pain, spreading over the teeth and gums of both the upper and lower jaw, consulted me, January 17th, 1868. The pain was most intense in the lower jaw and on the left side; she had intense headache also. The forehead and cheeks were notably hotter than normal, and she complained of great heat in the roof of the mouth as well as in the gums—which were swollen and sore. During the previous week she had had several teeth stopped with gold: one of them became most especially painful; and there was threatening of an abscess at its root.

The treatment consisted in the application of cold across the occiput, and of heat over the cilio-spinal region—in the first instance separately, and afterwards simultaneously. The pain was speedily and completely annulled; it recurred, and was again annulled by the same method on several occasions. The patient volunteered the statement that, during the application of the heat, her mouth became perceptibly cooler.

6. *Facial and Brachial Neuralgia.*—Mary A. T., æt. 44, first consulted me at the Farringdon Dispensary, December 28th, 1867, when she was suffering from neuralgia of the right side of the head, face, and neck, and along the right shoulder and arm—extending to the fingers. The right half of the tongue was also affected. The pain, which was exactly limited to the median line, was described by the patient—"like as if something is pulling the flesh off the bone, it's so dreadful, and sometimes as if the parts were screwed up in a vice."

She was treated by means of ice applied along the whole spine. She improved immediately and rapidly, and as early as January 15th, informed me that she had not had "a bit of neuralgia" during the whole of the preceding week. Up to this date (February 29th), the pains have not returned.

7. *Intercostal and Hypogastric Neuralgia.*—Miss E., who first consulted me, January 14th, 1865, complained of extreme pain on the right side of the lower dorsal and upper lumbar vertebræ, extending outwards and thence forwards to the right hypogastric region. The pain had continued every day and night, with occasional intervals of three or four hours release from suffering, and had lasted about 20 years. The pain was so distressing and wearing that the patient's strength had become much impaired—especially by loss of sleep, and she was unable to undertake any regular occupation. The only sleep she could get was induced by brandy and narcotics. She suffered also nearly every morning, and frequently throughout the day from nausea, and occasionally vomited "water."

I directed the patient to leave off brandy, opium, and morphia at once and entirely; and treated her chiefly by means of ice along the lower half of the spine. As early as February 14th, the patient was enabled to say to me,—"During the last few nights I have slept throughout the night without being disturbed at all—an experience quite new to me." On the first of the following April she informed me that she had already been many days absolutely free from pain. The nausea and vomiting had ceased; and the bowels had become "open every day—quite a new feature." I have since heard, from time to time, that this patient continues well.

8. *Intercostal Neuralgia.*—A man came to the Farringdon Dispensary, October 21st, 1867, and complained to

* The Spine-bags are supplied by Messrs. Maw and Son, 11, Aldersgate-street, London, and can be obtained from them through the agency of any druggist.

Dr. Drysdale, whose patients I was seeing with him, of acute pain along one side of the chest; no assignable cause for it could be detected, and we regarded it as a case of intercostal neuralgia. I recommended the application of the spinal ice-bag along the dorsal spine twice a-day. "Sometime afterwards," as Dr. Drysdale related to the Harveian Society, "the man returned to the dispensary, looking so delighted," that the doctor "asked him what was giving him so much pleasure, when he replied that the 'ice-bag had done him a world of good: it had taken away all his pain with wonderful quickness.'"

9. *Intercostal Neuralgia.*—Mary B., æt. 51, first seen by me November 27, 1867, complained of intense pain over the right shoulder, between the scapulæ, and along the right side of the chest. During the attacks of pain which came on and went away suddenly, the flesh, she said, quivered and tingled. She felt her body bent down as if she could not move it for fear of the pain.

She was treated by the application of the spinal ice-bag along the lower half of the spine during an hour twice a-day. The patient was surprised to find herself already quite free from pain during November 29th and 30th. Early in December, it recurred very slightly, but on the 18th, she said she remained free from neuralgia, except slight pain in the evening when fatigued by her work; she became much stronger, and was not so "nervous"; by December 28th all pain was gone, and February 26th, when I last saw her, it had not returned.

10. *Chest-Ache.*—October 21st, 1867, I was asked at the Farringdon Dispensary by Dr. Drysdale to prescribe for one of his patients, Maria Williams, aged 22, who was then suffering from continuous aching beneath the right clavicle, together with "dreadful pains" in the head, dizziness, heaviness in the morning, and profuse leucorrhœa—which had lasted several months.

I prescribed the application of a narrow 16-inch ice-bag along the spine during 30′ twice a-day—the bottom of the bag being placed on a level with the 4th lumbar vertebra.

October 26th.—The patient reported that the ice-bag had done her "a wonderful deal of good"; that the leucorrhœa had stopped, and that *all* her head symptoms had vanished. I requested her to persist in the treatment previously prescribed. By November 2nd the pain beneath the right clavicle had quite ceased, and no one of all her other troubles, previously got rid of, had recurred.

11. *Mammary, Ovarian, and Uterine neuralgia.*—H. M., a girl aged 17, who was first seen by me Feb. 24th, 1863, and who was suffering from daily attacks of epilepsy (*petit mal*), complained of extreme pain in the region of the left ovary, which was tender on pressure, and increasingly so immediately before the patient's menstrual periods; also of pain in the right mamma—which was considerably larger than the left, and of "fearful cutting pains" in the womb during menstruation.

I treated this case chiefly by means of iced-water applied along the spine. The result was complete cessation of the mammary, ovarian, and uterine pains; the mammæ became of equal size; and the epileptic vertigo, which had continued many years, ceased entirely a month after the treatment began, and has never recurred.

12. *Neuralgia of the legs.*—I was consulted June 25th, 1867, by Mr. ——, M.P., aged 49, who complained of excruciating neuralgia in the legs. The pain was of the ordinary tearing, shooting, and stabbing kind, sometimes in one limb, sometimes in the other, and affecting one heel almost continuously. This was often so acutely tender that he could not bear to touch the ground with it. As a rule the patient suffered most at night, and could rarely get any refreshing sleep. The malady came on about sixteen years ago, and had recurred at intervals ever afterwards. Until the morning he came to me he had never been free of intense pain for nineteen days. The patient was in the habit of drinking daily about a pint of sherry which I advised him to give up.

The treatment consisted in the application of a spinal ice-bag along the lumbar and the lower half of the dorsal vertebræ. The patient informed me, July 12th, that "practically speaking" he had had no pain since he began the treatment, and that he had slept well. I advised perseverance with the ice, and abstinence from wine. The patient wrote to me August 21st, "I continue to receive great benefit from the ice application, and shall continue it." The pain afterwards recurred in a mitigated form, but was greatly subdued by the ice, and, I incline to believe, would be quite cured if the patient would wholly abstain from wine.

13. *General Neuralgia.*—June 22nd, 1865, I was consulted by Lord ——, on account of neuralgia affecting different parts of the body: the walls of the chest, and the lower extremities were chiefly involved. The attacks generally came on suddenly, and lasted about fifteen hours, sometimes longer. The pains were of an acute, stabbing, and seemingly spasmodic character, and were often brought on by vigorous, muscular exercise, especially deer-stalking, which his lordship is very fond of, but which his attacks either cut short or prevented him from indulging in.

I prescribed the application of ice along the spine, and five grains of citrate of iron and quinine during a few days at a time occasionally. When I saw the patient again, April 27th, 1866, he informed me that he had applied the spinal ice-bag as directed during several weeks at a time at three successive periods since he consulted me. He declared himself so greatly improved that he had been quite free from his malady for long periods together, that when it had recurred the pains had been comparatively slight, that he could resume violent exercises, including deer-stalking, without bringing on an attack, and that in his opinion, had he continued the treatment regularly for a longer time he should have been completely cured.

14. *General Neuralgia.*—Hannah E. complained to me January 4th, 1868, at the Farringdon Dispensary, of great pain in all the four limbs, but most especially in the fingers and toes, and in the left side over a spot about the size of half-a-crown; of headache each morning; of "dreadful" back-ache; and of excessive irritability of the bladder, involving the necessity of urinating about every five minutes.

She was treated by the application of the lumbar ice-bag 90′, twice a-day. Within a week the pain in the limbs was almost wholly gone. By the 15th of January it, as well as her headaches, had quite ceased; her back was much better; and she was obliged to micturate only about every hour. On the 5th of February she reported herself free from every pain on account of which she had consulted me, and the irritability of the bladder was so much lessened, that she was only troubled with it at intervals of about 90′.

OUGHT DEGREES, OR OTHER PUBLIC CERTIFICATES OF SCIENTIFIC OR PROFESSIONAL ACQUIREMENTS, TO BE GIVEN TO ALL WHO PRESENT THEMSELVES FOR EXAMINATION AND STAND THE TEST?

By CHARLES DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.

In an admirable address on Medical Education and the Examining Boards, delivered at the Medical Teachers' Association, January 20th, 1868, Mr. Simon has proposed, for the first time in my experience, a question to the Medical Profession and the general public, which is, I believe, destined to receive much attention for some time to come from all who desire the advancement of learning. If we consider the tendency of modern opinion, we can easily observe, that the same habits of thought which have of late years led to the freedom of trade, and the abolition of protection of industries, are leading gradually to the same conclusions in respect to those questions which are of so much higher importance to human welfare, than even the free exchange of the material products of human toil.

The proposition that the public, or employer of labour, should have the right to seek for the best and the cheapest

article, irrespective of the country wherein, or the manner in which that article has been produced, is now an axiom generally received, in as far as the products of labour are concerned; but, hitherto, custom has willed that the extension of this principle shall not proceed so far as to admit all persons of sufficient education to examinations for degrees, either in general science, in medicine, or in theology. It has been, and is still the custom, to demand from the candidate for Medical degrees, certificates of all kinds, often vexatious and irrational to a degree, which we could scarcely believe could exist in so enlightened an age as this, as to attendance on the lectures of some qualified teacher, and even, in many cases, only the teachers of some particular school are recognized, and this practice is by no means confined to students under the age of 21; but is kept up for all students, even for men of 30, 40, or 50 years of age, who can in no way be supposed to be wanting in desire for their own interest, or in the wish to acquire knowledge as quickly and as thoroughly as possible. The consequences of these mistaken regulations of class-attendance, enforced by most of the colleges and universities of this country is that, after a student has passed through three or four years of lectures at a *school*, it seems very hard to reject him at his examination period; and hence, the standard of excellence required by the examining boards in the country are, almost without any exception, far too low. And, for this reason, I am quite of the opinion of Mr. Simon, that "if I could assume the thorough efficiency and disinterestedness of our examining boards, I may say for myself, that I should be well satisfied to look to the stringency of the examination, as a substitute for all regulations whatever, and would admit to be examined, with a view to registration, anyone who had arrived at the age for undertaking civil responsibilities," *i.e.*, the age of twenty-one years. In fact, this view of the question is one which was strenuously advocated for a long time by the illustrious statesman, Baron Wilhelm von Humboldt, and has also received the approval of the master thinker of the age, Mr. J. S. Mill, in his essay on Liberty. The last-named writer, indeed, proposes the system of examination, as the only one which the State should sanction with regard to children. Thus, he proposes that an age might be fixed at which every child should be examined, to see whether he (or she) were able to read; and if the child proved unable, it should be put to school at the parent's expense. Once in every year the examination should be renewed, he adds, with a gradually extending range of subjects, so as to make the universal acquisition, and what is more, retention, of a certain minimum of general knowledge, virtually compulsory. The examination in the higher branches of knowledge should be entirely voluntary. Wilhelm von Humboldt was of opinion, that degrees, or public certificates of scientific or professional acquirements, should be given to all who present themselves for examination, and stand the test, but that these certificates should confer no advantage over competitors, other than the weight which may be attached to their testimony by public opinion. Mr. Mill quite endorses this opinion; and it remains for us to take notice of some exceptions which have been taken to the proposal. It has been urged by persons of great experience that, if medical degrees were thrown open to all over the age of twenty-one, there would be some persons gifted with an admirable memory, and with a rapid power of acquiring knowledge, who would from these facts be enabled easily to take any such degree by merely studying, or what is called cramming, for a few months previous to examination, rapidly forgetting after the examination all their rapidly and ill-digested mass of knowledge. This is certainly the best argument for maintaining the present state of matters, which has, as far as I know, been adduced; but I believe the difficulty would be easily enough avoided by enforcing a very different style of examination from those which now obtain. Thus, I do not believe it would be possible for a student to be able to dissect well, unless he had given a considerable time to the subject practically; and, in the same way, it would be almost impossible for him to make a good diagnosis in disease of the chest, without having spent much time in the wards of an hospital. But, even if a man of great genius *were* able to acquire, in the short space of a year, all the knowledge requisite for passing a thoroughly good examination, it appears to me that the public would in this be the gainers, since they would thus have obtained, at small cost, a highly accomplished servant. And, after all, if we are driven to confess that examinations, however well conducted, can never attain the desired end of ascertaining the capabilities of a candidate for the degree of physician or surgeon, we must also confess that the present system is far more inadequate to that end. What? an hour spent in the library of the College of Surgeons, with four examiners, shall be considered sufficient, added to the certificate of attendance at some qualified teacher's classes, to test the abilities of a medical practitioner. It is a farce. What, again? must the unfortunate medical student continue much longer to have to think whether the school he attends at this part of the island may or not have its certificates accepted by those of some other locality, where he is fated to take his degree. The whole of these regulations are so vexatious, and so ill-constructed, that I cannot in any way see a path out of the perplexity, except by adopting the proposition of Humboldt, Mill, and Simon, and throwing open our Medical degrees to all candidates over the age of 21 years. The only two examining boards which have hitherto at all comprehended this problem, are those of the University of London, and of St. Andrews; but neither the one nor the other of these bodies has, as yet, dared to take the bold and final step, which, I hope, *both* may ere long adopt. For example, the University of London requires of Candidates for its M.B. examination, that they shall have (which is excellent) passed a matriculation examination; but, next to this, which I hold is an error, that candidates shall have been engaged in professional studies four years subsequently to this early examination: *one year to have been passed in the United Kingdom.* Cui bono all of this. If the University of London would but cast off these latter vexatious conditions, and keep up the stringency of its examination tests to the highest point, it would soon raise the standard of medical education in this country, and, instead of giving, according to Mr. Simon, twelve degrees in a year, it might give 200 equally good ones. The present degree evidently cannot be taken by persons already in practice, because they would have to wait for four years before taking it.

I will not dilate upon the folly of supposing that, because we can certify that students are bodily in the classroom, that therefore they are attending to the lecture. In those days of cheap books and libraries, it is certainly rather too much to require that students should have to listen over and over again, *usque ad nauseam*, to the very words which the able lecturer, perhaps, has just written in his text-book. The student will soon find out what lectures are absolutely necessary for him, and what subjects he can learn better from books. In all that I have said, I in no way interfere with the discipline which schools may think proper to enforce upon their students. These, like home discipline, may be, and are in some cases, highly necessary in the case of young persons; but the main point in the matter we are discussing is, that the best article—*i.e.*, a highly educated medical man, should be obtained in the quickest and most efficient manner, and I therefore conclude by asserting that "degrees, or other public certificates of scientific or professional acquirements, should be given to all who present themselves for examination and stand the test."

CASES OCCURRING IN THE PRACTICE OF JAMES MARTIN, F.R.C.S.I., L.K.Q.C.P.

CASES OF PUERPERAL CONVULSIONS.

JANUARY 28th, 1861, I was called at 1 A.M. to see Ann Rielly, æt. 24.

Being in the ninth month of pregnancy she had false labour-pains the previous day, for which she remained in bed. Early in the previous night she was disturbed by a drunken squabble at her door; her head, which had ached all day, became intensely painful, and when I was sent for, she had been just seized with a violent epileptiform convulsion.

On examination I found the os uteri open to admit the top of the finger, but no uterine action. I immediately took ten ounces of blood from arm, when the convulsions ceased, but she became pallid, and it was evident that further abstraction of blood would do harm. I had a fetid turpentine enema administered, and gave a stimulant draught of chloric æther and sp. ammonia; the convulsions returned in about half-an-hour, but ceased on the enema acting copiously.

In the morning she was still insensible; slight convulsive movements occasionally; the muscles firm and rigid; pupils dilated and sluggish; cheeks flushed, and head hot. I applied six leeches to temples, and gave a cathartic bolus of calomel and jalap. In the evening the same state continued, and the bolus not having acted, I administered one drop croton-oil, and four grains of calomel, had the head shaved, and a strap-blister over the entire scalp.

Seven A.M., January 29th.—Same state, lying prone, with occasional convulsive paroxysms, more or less violent; perfectly insensible to external objects; pupils dilated and inert; bowels freely moved three times during the night; os uteri enlarged to size of half-a-crown, but no evidence of labour having set in.

Ten A.M.—I was sent for hastily, labour had set in violently about an hour before, and it having been a breech presentation, I found the body delivered, the head remaining in the vagina. I speedily extricated this, the placenta was soon expelled, followed by a smart dash of hæmorrhage; the uterus, however, contracted well and quickly. Immediately after the convulsions returned in violence, but the pulse being soft and compressible, I ventured to give half a drachm of tincture of opium, after which they ceased, and she fell into a stertorous sleep; the pupils were still dilated, but became actively sensitive to the action of light. Sinapisms were then applied to the legs, which roused her considerably, and, in speaking to her two hours afterwards, she seemed conscious.

In the evening she was more conscious, turned her eyes towards any person addressing her, and evidently heard distinctly.

Hyd. i. crœt. gr. ij. 3tia q. hor., her head dressed with ung. hydrarg.

Jan. 30.—I found her conscious and able to reply to questions, but looking vacant and wildly; pulse 96; bowels acted during the night; takes broth and arrow-root. Cont.

Evening.—Continues to improve.

Jan. 31.—Restless night, pulse 110, firm and sharp; lochiæ present. No tenderness on pressing over the abdomen; headache; bowels acted twice. Intermit hyd. i. crœt. + affricen. axil. unguenti hydrarg. drachmâ ter indies.

Evening.—Had two slight convulsive fits during the day, but is now quite sensible; skin moist; pulse 110, sharp and firm; has had no sleep; breasts tumid; lochia still present.

The child having died, the breasts were drawn; bowels acted once freely during the day; ordered pulv. Doveri. gr. vi. Hyd. i. crot. gr. iij. statm. Affricen. Mammæ. unguento. Ex Belladonna 3j. Axungiæ 3iij.

Feb. 1.—Had a good night; free perspiration; pulse 84, soft; breasts soft; gums tender; quite clear in answering questions. Interm ung. Hydrarg.

Feb. 2.—From this day her convalescence was steady and progressive.

June 3rd, 1863.—Alicia Hickey, æt. 23, first pregnancy about the end of the seventh month, was seized with violent convulsions. I saw her within half-an-hour of the first seizure, and finding all the vessels of the scalp turgid, and the pulse full and firm, took some blood from the arm, how much I could not say in consequence of her struggles not allowing of its being collected, but sufficient to make an impression on the pulse. The convulsions ceased, but she remained insensible and stertorous. The os uteri was dilated about the size of half-a-crown, but no uterine action. I put a drop of croton oil on her tongue, and left a woman with her. On returning in about two hours I found, that just on my arrival the bowels were actively moved, and, at the same moment, the fœtus, and placenta, were expelled together. The child lived for two days; no hæmorrhage followed. Insensibility continuing, I applied over the scalp which had been shaved in the meantime, a strap blister, and gave beef-tea frequently. Next morning I found her conscious and able to take her food; the blister rose well, and she made steady progress to convalescence.

WOUND OF SCALP.

Jan. 20, 1865.—A car-driver was thrown from his car near my house, inflicting a wound about 8 inches long, and throwing down a large flap, under which could be seen great part of the temporal muscle. My son, a pupil, at present attending Mr. Syme's class in Edinburgh, being at home, went to where the occurrence took place, but alarmed by the extent of the wound, sent for me. I found on my arrival that he had cleaned out the flap; mopped all the interior of the wound with oil, containing 1·30 part of pure carbolic acid, and brought the edges of the wound into as close apposition as their bruised state admitted. We then applied some adhesive straps to retain it, kept pressure for 10 or 15 minutes with the hand over the flap to prevent any oozing of blood, which might be retained under it, and finally dressing the wound with strips of lint dipped in the same oil, applied a double-headed roller carefully. He then drove himself into Waterford, a distance of ten miles, the day being cold and frosty, and became a patient in the Leper hospital of that city.

Dr. Cavet, under whose care he has been, informed me that the whole flap adhered, and the entire wound healed without it being necessary to change the dressings, and without one drop of pus having been formed.

Hospital Reports.

MERCER'S HOSPITAL.

INFLAMMATION OF THE SCROTUM ENDING IN EXTENSIVE SLOUGHING.

By Mr. J. MORGAN, F.R.C.S.I.,

SURGEON TO MERCER'S HOSPITAL; PROFESSOR OF SURGICAL AND DESCRIPTIVE ANATOMY, R.C.S.I.

DIFFUSE INFLAMMATION OF THE SCROTUM RUNNING INTO MORTIFICATION.

Having met with some instances of acute inflammation of the scrotum running rapidly into mortification and sloughing occurring in persons of low vitality, and under special exciting causes, the following case, from my hospital notes, may not be uninteresting as an illustration:—

R. H., a thin man, aged 56, hitherto healthy, a hard worker at his trade of painter and general jobber, and of extremely penurious habits, was admitted to hospital, Wednesday, at twelve o'clock; he states that he had been particularly hard worked during the previous week; that he had not taken any meal at midday or dinner; had been a good deal exposed, and wore a pair of new *hard trowsers* the previous Saturday.

On going home that evening he first felt pain in the upper part of the thighs, and some tingling of the scrotum, but hardly enough to attract particular attention.

On Sunday the scrotum began to swell mostly at the depending parts; there was no increase of pain, but more a sensation of weight, and it was not till Tuesday that any great pain was felt, or that he was obliged to stay quiet. He

describes the scrotum as having been now red; the pain was tingling; he had no difficulty in passing water, the chief inconvenience being the sensation of weight.

On admission on Wednesday the scrotum was very much swollen, as was the penis; the scrotum had a soft feel, showed a small slough, and there was a considerable slough on the penis, ash coloured, and moist; the perineum was perfectly normal, the swollen scrotum being abruptly marked off; there was great prostration of strength, the pulse weak and feeble, 100.

A catheter was introduced as a precautionary measure, without difficulty.

Free incisions were made into the scrotum, which was deeply sloughed. Stimulants freely administered, bark and ammonia mixture ordered every three hours; the parts were dressed with camphorated spirit, and surrounded with cotton; the scrotum being well supported.

Thursday.—The slough of penis had considerably extended; the general swelling diminished; two additional incisions, deep and free, were made at the root of penis and scrotum; general symptoms rather improved; treatment continued.

Friday.—Slough on penis rather extended; condition of scrotum improving, and the swelling not quite so marked; treatment continued, with a free supply of stimulants; spirits in punch, and flip, &c.

Saturday.—The entire prepuce and much of the skin of the penis is now sloughed; the scrotum is improved and the sloughs are beginning to separate

Treatment and stimulants continued.

Tuesday.—The slough of penis extending; an erysipaletous blush is now showing itself round the thighs and lower part of belly; pulse 120, and strength rapidly failing. The patient died during the night.

A post-mortem examination could not be obtained, but, as far as could be learned by local inspection and examination, the testes were lying in a slough, the entire integument of the penis was sloughed away; the urethra was healthy and perfect, and the scrotum altogether disorganised.

In this case the man attributed the first commencement of the disease to the "hard trousers," and, besides, he had been working with unusual effort—standing cleaning windows; the rapidity of the sloughing process, and the tendency to spread, till the penis was thoroughly denuded, was well-marked.

I have met with some cases very similar to this one, but none of them fatal, occurring very much under the same circumstances in dealers and others going from fair to fair, where the "best trousers" were put on, which, being hard, were always looked on as being the exciting cause. In these the sloughing process was very rapid—one man, aged 60, was taken into hospital, January 13, the entire scrotum being pulpified by sloughing: he had walked to a fair some fifteen miles off, and on the second day after doing so, was admitted in this condition; the parts healed with great rapidity, so that he was discharged, cured, on February 1, a period of eighteen days only being required.

Another younger, but delicate man, aged 35, under much the same circumstances, was admitted June 7, and discharged on the 28th, cured; the closing-in taking place with great rapidity, a period of twenty days only being required.

In general, the cases are seen when the entire scrotum, or the greater part, has absolutely been in a state of slough, and once the slough is about separating, the camphorated spirit acts most beneficially as a mild stimulant. I believe these cases are met with in the country more frequently than is generally supposed.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL PRACTICE.

(Continued from page 133.)

Diseases of the Nervous System.—Under this head are comprised diseases of the cerebro-spinal system and of its coverings.

Two cases of epilepsy occurred; one in which there was an old depressed fracture of the skull; in the other the patient was burnt. These are the only two instances in which the disease manifested itself during the patient's stay in the house; the other cases in which accidents were ascribed to epilepsy have not been entered here.

There were six cases of delirium tremens, occurring in patients who had met with accidents; two died. Two cases of hemiplegia are entered, and five of disease of the brain; these latter were probably due to some chronic inflammation of the brain-membranes, and occurred in patients who had met with accidents: the symptoms were relieved by purgation, low diet, and the iodide of potassium or bichloride of mercury. One case of mania is recorded. It occurred in a young woman who had been admitted with erysipelas of the scalp and face.

One case of infantile paralysis and three of partial paralysis, with one of sciatica and six of neuralgia, complete this class of cases.

Diseases of the Skin and its Appendages.—These present us with a very numerous set of cases, which it is impossible in the present work to consider in detail; such, however, as are of especial interest will be cursorily touched upon.

Besides 26 cases of eczema, we find 15 cases entered as rupia; under these are included several instances of rupial ulcer. They rapidly improved under calomel vapour-baths. In some instances these could not be borne, and the mineral acids, especially the dilute nitro-muriatic with bark, and sarsaparilla, or cod-liver oil, were substituted. Iodide of potassium was also used: of this drug Mr. Ring writes—"Given to patients in a low and cachectic condition, in doses of ten grains, three times a day, it was found that they rapidly improved and increased in weight." A woman aged 37, whose limbs and face were more or less crusted with rupial scabs and ulcers, and the alæ of the nose partly eaten away, died from exhaustion. Cod-liver oil and syrup of the iodide of iron were administered, and for some three weeks she appeared to be doing well, the scabs fell off in numbers, and the ulcers commenced healing; calomel fumigation was also employed: but soon after this, the little strength she had gained began to decline, the healing process was arrested, the ulcers became foul, emitting a fetid odour, and in spite of stimulants she sank exhausted. The body was excessively emaciated. The lungs were œdematous and anæmic; the liver was fatty, and in an early stage of amyloid degeneration; the other organs were natural.

Psoriasis was treated with the liquor arsenicalis, or bichloride of mercury, and bark. A case of psoriasis guttata unaffected by this, improved under calomel-baths.

Two cases of lupus non-exedens and one of lupus exedens came under observation. The former were much benefited by the administration of cod-liver oil and the arsenical solution, with the topical application of an arsenical paste; the latter persistently recurred after extirpation by the knife. The patient, a woman aged 30, had suffered five years previously from circum-orbital pain; this was followed by a rodent ulcer of the eyebrow. The diseased surface was removed by the knife three years subsequently, but had since reappeared. When admitted, there was an elevation of thickened tissue extending from the root of the nose to the scalp. On the left of this the forehead was depressed and seamed with white scars, which extended from the roots of the hair over the orbit (which was obliterated) to the cheek. Just above the centre of the malar bone was a small wart-like excrescence, and external to this a patch of ulceration, with red, sharply-defined edges. She complained of sharp pain, which extended from the root of the nose and seat of ulceration to the vertex. An incision was made down the middle line of the forehead from the roots of the hair to the nose, and the integument dissected outwards from the bone for about an inch and a-half; the ulcerated surface was cut out, and the malar bone

exposed; its surface being somewhat softened, it was scraped away.

On the second day nitric acid was applied to the exposed bone, and rest insured by a morphia draught at night. The wound almost healed in a week, and she was made an out-patient, but a third operation afterwards became necessary.

Two cases of ecthyma occurred in syphilitic patients; in one case calomel vapour-baths, and in the other syrup of the iodide of iron, with cod-liver oil, produced the most beneficial effects.

One hundred and fifty-three cases of ulcer of the leg were admitted. Nine were attacked with phagedæna, and in three instances the extensive sloughing necessitated amputation, and death ensued.

Six cases are entered under the head of cancerous ulceration, in the form of epithelioma. In four of these the diseased mass was extirpated. In one instance the patient, a man aged 61, would not submit to an operation; he had an epithelial growth on the left ring-finger, with an enlarged gland at the bend of the elbow. Acetic acid was applied, and the surface became more healthy. In a case of epithelioma of the lip, the disease was removed by an elliptical incision. In another of the face, the knife was also employed. A large fungoid growth surrounded by unhealthy ulceration occupied the left cheek; and the whole face was covered with puckered cicatrices, as though from a burn. The whole of the diseased mass was cut away. The incision extended from the middle line almost to the angle of the jaw, and went down to the bone. Some suspicious points were touched with the actual cautery, and the whole was covered with chloride of zinc paste. The sloughs separated, and he was discharged with the wounds almost healed. One case of epithelioma of the leg proved fatal from exhaustion; the patient was admitted in a dying state.

The penis was affected in two instances, and the labium in one. In the first cases the disease was removed with the écraseur, in the latter with the knife, and in it the bleeding was effectually arrested by means of the twisted suture.

Sixteen cases of tumour were admitted; viz., six fatty, six sebaceous, one encysted, and three malignant. The fatty and sebaceous tumours were all successfully removed. The former were found on the neck and upper extremities, with one in the labium; the latter in the scalp and face. One case of encysted tumour is recorded. The patient had been an in-patient in 1866, the tumour had been punctured and freely laid open, and then was made to suppurate by the introduction of a silver wire. She was in a weakly state when admitted, but the tumour had almost disappeared. Three cases of malignant disease were admitted. One occurred near the lower end of the femur, another in the glands of the axilla, after the removal of a tumour from the hand; both were discharged at their own request. The third was a case in which a mole assumed a malignant aspect. It occurred in a woman aged sixty-two, in whom a mole had existed on the right arm from infancy. Of late it had been increasing in size, and caustic had been applied, which caused it to ulcerate. It presented a fleshy appearance, was hard, red, and shining, and occasionally bled. It was removed. Under the microscope it was found to contain neucleated cells, some of them of large size, others elongated, and filled with granular matter.

Four cases of carbuncle were admitted. They were treated by incisions, with generous diet and tonics. Three boils, three cases of œdema, eight of onychia, in two of which the nail was removed, and two of corns and bunions, call for no comments. One case of conical and ulcerated stump, in which amputation was performed, terminated fatally from pyæmia. Three others were benefited by treatment.

One case of elephantiasis of the leg, that had existed for eighteen years, proved fatal after amputation.

(To be continued.)

SURGICAL SOCIETY OF IRELAND.

JANUARY 31, 1868.

Mr. COLLES in the Chair.

(Continued from page 193.)

CASE OF STRANGULATED INGUINAL HERNIA, TREATED ACCORDING TO PETIT'S METHOD.

By MR. J. H. WHARTON.

IN the course of the Session 1866-67, I had the honour of making a short communication to this learned Society, on the subject of operating for "Strangulated Femoral Herina, according to Petit's method." The communication will be found amongst the records of this Society, and is published in THE MEDICAL PRESS AND CIRCULAR of 5th May, 1866. The special object I then had in view, was to have ascertained the opinion of the Society, as to the advisability, or otherwise, of opening the sac. I alluded to the part which Professor Hargrave—who was the first to introduce this question to the consideration of the Society—had taken in the discussion which ensued upon his paper, as reported in the 29th Vol. of THE MEDICAL PRESS. Mr. Luke's statistical accounts, as also those enumerated in a communication published in the 32nd Vol. of the *Dublin Quarterly Journal*, by Mr. Maurice H. Collis, testify strongly in favour of not opening the sac. These facts, as well as the opinions of surgeons of eminence, Sir A. Cooper, Sir Chas. Bell, Bransby Cooper, Laurence, Key, and Luke, were noticed in my communication, as being more or less strongly in favour of the proposal of Petit, who made, however, some exceptions to the operation, amongst which may be specified gangrenous intestine, the presence of foreign bodies in the intestine or hardened scybala. Mr. Bryant in his communication, published in the 2nd Vol., 3rd Series, of Guy's Hospital Reports, for the purpose of proving the great value of this operation, as shown by his statistical returns, does not make any exceptions but one, to the method, and that is, where the intestine is ruptured.

My object in addressing the Society this evening, is partly in consequence of a desire to answer a question put by the deservedly lamented Dr. Banon, upon the occasion I read the paper referred to, but which at that time I could only respond to theoretically; and partly to reply to a query privately and incidentally asked, on a late occasion, by Mr. Fleming —"Could the sac be retained in the abdomen?"

The former was to the following effect—"Should the recommendation of the operation be confined to femoral hernia?" I replied in the negative, or rather submitted that the *rule* should apply to all cases of strangulated hernia. A case at present under my care will enable me to answer the question more authoritatively. A man named Patrick Mullen, was admitted to the Meath Hospital, under my care, on Sunday the 5th of the present month, on account of strangulated inguinal or scrotal hernia, at the left side. His age is 64, his occupation a car-driver; he had recently met with an accident which injured his side, and for which he was under medical advice elsewhere, and was, moreover, suffering not a little from bronchitis. A hernia had existed for, "he did not know how long" to use his own words, but the strangulation was not of longer duration than 24 or 26 hours. The taxis having failed, herniotomy was had recourse to. When the sac was reached, search was made for the stricture, and when found, divided, though not without difficulty. By patient and gentle pressure upon the tumour, I had the satisfaction of finding a diminution of its bulk; and this was quickly followed by the return of the intestine. The sac, also, was made to follow with ease; and was retained in the abdomen, so long as I kept up pressure on the external ring, and not otherwise. I mention this in reply to Mr. Fleming. This man is now convalescent, notwithstanding the unfavourable conditions as to age, occupation, his recent accident, and, above all, his bronchitis. To these I might add other drawbacks which he had to encounter subsequently to the operation; for instance, severe diarrhœa, a not unfrequent cause of death after operation. *No aperients were administered.* And the fact of his having on the second night after the operation, got out of bed. This case I do not advance, as sufficiently comfirmative of the expediency of the non-opening of the sac in strangulated inguinal hernia, though it is a proof that it may be done, at all events, with impunity. But I have further evidence to adduce—namely, a case in which Mr. Macnamara operated on in September last, and in which he kindly acceded to my proposal to spare the sac, and with the best results. These are the

only two cases in which I have had an opportunity of witnessing the operation without wounding the sac. So far as they go they are, I think, satisfactory evidence of the reasonableness of the reply which I gave to the question of Mr. Banon, whose untimely removal is still so fresh in our memory. As to the general question of the opening, or the non-opening of the sac, I would be very happy, indeed, to have the opinion of the meeting. I have only to add, sir, in conclusion, that I have operated in femoral hernia since my paper was read without opening the sac, as have also some of my colleagues, Mr. Porter more recently, and with full success.

Mr. CROLY said he had operated several times for strangulated hernia, and had seen many operations performed by his colleagues; and the point he had made up his mind on was this, that if the hernia were a recent one, it was a good rule not to open the sac, when they were certain that there were no adhesions to prevent the gut going back. On the other hand, if the hernia were an old one, and bands of adhesion had been formed, the rule ought to be to open the sac. As he had operated lately on a case of strangulated hernia, he would reserve any further observations on the subject until he came to state the particulars of that case.

Mr. E. HAMILTON asked Mr. Wharton whether, when he did not open the sac, he experienced much difficulty in coming at the stricture?

Mr. STAPLETON said his experience was, that there were a number of cases in which strangulation took place within the neck of the sac itself. He had seen the parts fairly divided, and still it was found impossible to press the intestine into the abdomen, and the strangulation remained. It was not always easy to know the state of the intestine. If the strangulation were in the neck of the sac, the very strangulation itself might be pressed back into the abdomen. He had seen cases where everything seemed to pass off very well at the time of the operation; but on a post-mortem examination afterwards, it was found, that the intestine was absolutely strangulated by the neck of the sac itself.

Mr. FLEMING had operated in cases of strangulated hernia, but always by opening the sac. In the Richmond Hospital, situated in a locality where there were a great many cases of hernial affections, the average number of strangulated herniæ was extremely limited. He would exaggerate if he said the number of such cases, presented at Richmond Hospital, averaged four in the year. That was a small number, comparatively speaking, when the amount of the population was taken into consideration. As to the opening, or not, of the sac, all were familiar with the rule mentioned by Mr. Croly as regards recent and old cases of hernia. Great interest attached to the case brought forward by Mr. Wharton, as being one of inguino-scrotal hernia. It was a matter of much practical value to hear that in such a case the mode of treatment adopted had been successful, the sac being returned into the cavity of the abdomen. In cases of inguino-scrotal hernia, the hernia was necessarily of lengthened duration; the hernia very rarely passed down quickly from the inguinal canal into the scrotum; there were generally connections of the sac in the scrotum in such cases which it was not easy to detach; and to return the sac into the abdomen under such circumstances must be difficult of accomplishment. He confessed he would be apprehensive of mischief resulting from the return of the sac in a case of inguino-scrotal hernia into a cavity so sensitive as that of the abdomen. There was great interest, therefore, attached to this case from the fact of a large scrotal hernia going into the abdomen without opening the sac, and accompanied by the sac, without any injury resulting therefrom.

Mr. STAPLETON observed that in cases of umbilical hernia he had divided the stricture, and did not consider it necessary to return the sac. The intestine was returned, but there was a great advantage in not returning the sac.

Mr. WHARTON, in reply, said he had merely brought forward the case to answer a query put by the late Dr. Banon, inasmuch as at the time the question was asked, he had had no experience of operations for inguinal hernia by Petit's method. Previously, he had always opened the sac, but having seen these two cases in which an opposite method was pursued, he thought it right to bring them under the notice of the Society. The one operated on by Professor Macnamara, was a case in which strangulated hernia had existed for a considerable time, he did not open the sac, and the case turned out well. The other was a case of his (Mr. Wharton's) own, and the patient was now convalescent. He agreed that if the stricture were situated within the sac, the surgeon was bound to open it. As to Mr. Hamilton's question, he thought the difficulty was greatly lessened by operating without opening the sac. In one case of strangulated hernia, in which he had operated after dividing what he believed to be the stricture, he found the hernia would not go back into the cavity. Mr. Porter, who assisted him, then found that a band existed higher up, and this being divided, the hernia was easily returned. Mr. Fleming had rather misunderstood him. He appeared to be under the impression that the sac was retained in the abdominal cavity. What he stated was that he could return the sac into the abdominal cavity, and keep it there as long as his finger remained on the ring, but when he removed his finger it came down again.

STRANGULATED HERNIA.

Mr. CROLY said he admitted a poor woman named Dunne, aged 66 years, into the City of Dublin Hospital on the 16th of January. She had been vomiting for some days, and had no motion from the bowels for weeks. On examining the groin he observed a tumour parallel to, and beneath Poupart's ligament. It measured three inches in the long axis and two inches from above downwards. The patient said she first noticed the "lump in her groin" three years ago after a fatiguing walk. It was always down, but a week previously to her admission into hospital it got suddenly larger, as she lifted down a loaf of bread from a high shelf. The lump gave her no annoyance, and was not tender to the touch; she never wore a truss, and had naturally costive bowels. The pulse was not quick, and the countenance did not present the usual hernial aspect; the abdomen was distended, and she complained of a colicky pain near the umbilicus. Her stomach was sour, and she was thirsty; lime-water and milk was ordered as drink, and pieces of ice to relieve the thirst. A turpentine enema was administered with O'Beirne's long tube (which was passed up its full length without any difficulty or obstruction), but came away at once without any fœcal matter. He satisfied himself, after a very careful examination of the tumour, that it came down through the femoral ring, though presenting the shape of an oblique inguinal hernia. A consultation was held a couple of hours after the patient's admission into hospital, and it was decided that an operation should not be performed, as urgent symptoms were not present. Ice was applied to the tumour, and the injections repeated. There was no return of the vomiting, from the patient's admission into hospital, until the 17th inst., when she rejected some greenish coloured fluid. On the 18th inst., as there was no motion from the bowels, and the tumour could not be reduced by taxis, it was decided, upon consultation, that an operation should be performed.

The patient was chloroformed, and the usual operation for femoral hernia performed—the sac was not opened. Poupart's ligament was first divided and then Ginbernat's. Careful pressure was made on the hernia but it could not be reduced; as all constriction was divided the wound was closed with sutures.

There was no return of the vomiting until the 20th inst., and no diminution in the size of the hernia. The bowels were not freed; another consultation was held, and it was decided to explore further the hernia, by opening the sac, and if it could not be reduced to make an artificial anus; accordingly, the single incision was converted into an inverted ⊥, and the flaps being dissected up, the sac was carefully opened: the intestine was dark-coloured and a large piece of omentum was closely adherent to its external surface.

No constriction could be felt elsewhere, but one portion of the gut was found to be gangrenous, and gave way under the finger; the piece was removed and the edges stitched to the external wound. A large quantity of liquid fæces escaped through the artificial anus; the patient was removed to bed—hot applications were applied to the extremities—wine, beef-tea, and opium given, and ice to relieve the thirst; poultices were constantly applied over the artificial anus, and the parts were frequently washed with a solution of carbolic acid.

The patient expressed herself as much relieved, and the abdomen re-assumed its natural size. She took plenty of nourishment, and had a nutritive injection thrown into the rectum every third hour. She gradually sank, and died on the 28th inst., fourteen days after admission. I made a post-mortem examination in the presence of the class, assisted by my colleague Dr. Hewitt.

There was a double coil of the ilium found in the *femoral ring*, and a large gangrenous mass of omentum to its outer side—the small intestine near its termination was congested, and there were bands of lymph gluing the intestines together—

the vermiform appendix *adhered* to the small intestine by its tip; the pelvic fascia and peritoneum on the bladder presented a highly vascular appearance, and there was a large quantity of purulent matter in the pelvic cavity. The transverse colon was doubled on itself and passed down near the left inguinal region. The cœcum contained some scybala and was moderately distended with flatus.

Mr. EDWARD HAMILTON asked whether the bowels acted after the operation, for so far as his experience went, the most frequent cause of death after the operation for strangulated hernia, was atony of the intestine. It not uncommonly happened in these cases that the intestine did not recover its tone.

Mr. RICHARDSON said that many surgical writers allude to the fact just mentioned by Mr. Hamilton, that it does not follow if the stricture is removed, the natural peristaltic intestinal action will be resumed. Thus, the nipped portion of bowel, although not gangrenous, may be so injured as to be incapable of recovering its function. Again, peritonitis, limited to a small length of intestine not engaged in the hernia, may cause paralysis of the subjacent muscular structure, and not allow anything to pass through this portion of the intestinal canal. He (Mr. Richardson) operated upon a case of strangulated femoral hernia, released the bowel from its stricture, and, notwithstanding that there was scarcely any appreciable tenderness of the abdomen, the symptoms of strangulation persisted, and death quickly followed. In that case, on opening the abdomen, he found several inches of the small intestine, some distance from the portion of hernial bowel that had been nipped by the stricture, intensely inflamed with small gangrenous spots here and there. Of course this state of the bowel accounted for the continuance of the symptoms of strangulation after the operation. Such kind of cases serve as a warning of the danger of delaying to operate after a fair trial of the taxis. He need scarcely allude to general peritonitis as a cause of death in strangulated hernia.

Mr. HEWITT said with regard to one point, that of the hernia being up in the inguinal canal, and looking like an inguinal hernia, Mr. Croly would recollect another case of a similar kind, also occurring in a female. The hernia had remained for three weeks or a month in the inguinal canal without showing many symptoms; and in that case, Mr. Croly expressed his opinion, that although it was apparently an inguinal hernia, it was really a femoral one, and in that case the hernia was returned without the opening of the sac. In the present case, however, although Ginbernat's and Poupart's ligaments had been both cut across, the intestine would not return, owing to the bands of lymph which had been formed. He had seen Mr. Croly operate, and fail to return the sac, and in one case he found complete constriction in the neck of the sac. He should therefore say, that the sac should be opened as a general rule.

Dr. JAMESON had operated in a great number of cases of hernia, both inguinal and scrotal, in Mercer's Hospital, and had been probably as successful as any other surgeon there; for out of 19 cases, he had lost only three. In one of the latter cases, there was a tumour in the groin, in the locality of the femoral ring. On consultation with his colleagues, it was decided that he should cut down on this. Accordingly he cut down in the usual way, and came upon a gland in the groin, about the size of a walnut. He cut down upon it and into it, fully to the depth of the blade of the knife; and he also dissected round it. However, it was decided that they should close the parts and leave the patient alone. Symptoms of strangulation continued, and she died in 36 hours afterwards. On a post-mortem examination they found, when they cut into the gland in the groin, that there was in the *centre* of it a small knuckle of intestine, not larger than a hazle-nut. This case was a warning to surgeons when they found a gland in the groin, to proceed with great caution. He invariably opened the sac, except in one instance, and that was a case of very recent femoral hernia in a female—in fact the hernia was not down 24 hours until he operated. He owed all his success to operating early. The taxis having failed, he never waited. He looked upon that as the reason that all his cases were so exceedingly fortunate. In one of the cases he lost, when he opened the sac, a flow of liquid fæces came out, and he thought the man would die on the table. He died in some five or six hours after the operation.

Mr. FLEMING observed that the diagnosis of strangulated femoral hernia was often very difficult, especially if there was a large deposit of fat. However, by proceeding cautiously the femora lcould be distinguished from the inguinal hernia. As to the shape of the sac, it varied very much, and the elongated sac was a form that very often existed in these cases. In diagnosing the contents of the sac, they were assisted by percussion. According as the sounds were dull or clear, they could determine the presence of the intestine, or of fluid, in the sac. As to strangulation, that was generally indicated by the obstinate constipation of the bowels; and in cases of femoral hernia, he would be disposed to act promptly.

Mr. STAPLETON said that in femoral hernia, although the ligamentous stricture was divided, still there might be stricture in the neck of the sac, and the way to prevent that was to get the assistant to take hold of the sac on each side, and if there was stricture in the neck, the surgeon could divide it.

Mr. CROLY, in reply to Mr. Hamilton, said that the bowels acted only through the artificial anus. In this case they found a large lymphatic gland, and removed it. Sir A. Cooper had called attention to this point, and warned the young surgeon to take care lest a knuckle of gut should be found behind the gland. He quite agreed with Dr. Jameson as to the importance of operating early. Mr. Hey, of Leeds, told him that he never lost a case of hernia, and that he operated the moment the patient came into hospital. Mr. Fleming appeared to think strangulated femoral hernia of the shape alluded to in this case, not an uncommon form, but he (Mr. Croly) thought it was very rare, and Dr. Hargrave, who had had great experience in cases of strangulated hernia, and had operated many times for it, was also of opinion that it was very rare.

FIRST STAGE IN THE FORMATION OF URINARY CALCULUS.

Mr. B. WILLS RICHARDSON said—We are indebted, sir, to the labours of Dr. Lionel Beale for some valuable facts concerning the origin of certain urinary calculi. "It is important," as he observes, "to bear in mind that there was a time when even the largest calculus was a microscopic object, when it might have been removed from the organism and the formation of 'stone' entirely prevented."

All surgeons familiar with Dr. Beale's labours cannot doubt that he has had most extensive experience in the analyses of urinary calculi, therefore, any statements of his regarding the formation of calculi, should have great weight. How, then, does he say the great majority of urinary calculi commence?

According to his observations, "the 'nucleus' of almost all calculi exhibits the same composition and characters, and is formed in the same manner. If small *uric acid* calculi be soaked in liquor potassæ, the uric acid will be dissolved and a 'nucleus' will be left which consists of a little mucus with small fragments of oxalate of lime, and in many cases *well-formed dumb-bell crystals* of oxalate of lime may be clearly demonstrated." Of course the same remark applies to ordinary mulberry calculi. Finally, Dr. Beale has come to the conclusion that *dumb-bell* and *spheroidal crystals* of *oxalate of lime* "are very frequently the 'nuclei' around which other insoluble or partially soluble materials are deposited."

That this opinion is well founded, is shown by the fact, that microscopic aggregations of *dumb-bell* crystals of oxalate of lime, are frequently seen in the uriniferous tubes of the kidney.

Having recently met with some oxalate of lime deposits in the urine of a patient under the care of Dr. Head, in the Adelaide Hospital, which, to a great extent, support the view of Dr. Beale, that the *dumb-bell* crystals frequently form the nuclei of calculi, I am induced to draw the attention of the society to the specimens. They are preserved in glycerine, and not only are there *dumb-bells* and *rosettes* of oxalate of lime, but there are also vast numbers of octahedra of the same salt, as well as crystals of lithic acid of various forms and sizes.

If the members examine the slides they cannot fail to see that there are several microscopic masses of *dumb-bell* crystals on each of them. Now, Dr. Beale's remarks—and I have frequently verified his observation—that the *dumb-bells* and their modifications have a great tendency to collect and adhere together. In fact you may move them about, shake them in water, and yet they will continue to adhere together. The crystals in the glycerine before the society were washed over and over again, shaken about in distilled water before final mounting, and yet they did not separate, or at least masses remained of sufficient size to form microscopic calculi. The *dumb-bells* became mutually dovetailed, as it were, and whatever spaces existed between them, finally became obliterated, as seen in many of the specimens under the microscope on the table. Dr. Beale gives, in his work on the urine, illustrations of two small calculi apparently formed in this manner. When such microscopic calculi are formed, they may become either the nuclei of the mulberry calculus; or should the urine be

charged with urates or phosphates, these salts may be deposited upon them; but in case of alternate variations in the characters of the urine, the alternating calculus may be the result.

The cells before the society, as already mentioned, contain not only octahedra; *dumb-bells*, and their modifications, but also a large quantity of uric acid crystals, so that we can readily conceive, how easily a compound stone could be formed in the person, in whose urine they were found.

Some of the gentlemen present may remember, that the late Dr. Golding Bird considered the *dumb-bell* crystals were probably composed of oxalurate of lime. This, however, is not now believed to be correct, for subsequent investigations to those of Dr. Bird have, I believe, proved that they also, are composed of oxalate of lime. The *dumb-bells* before the society, are not seen by ordinary light, for I thought, that on account of their property of polarising light, it would be better to exhibit them to the society with the assistance of the polariscope, which renders them easily seen, and at the same time, most beautiful microscopic objects.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 4, 1868.

ABYSSINIA.

THIS subject is beginning to be looked for regularly by the readers of all kinds of periodicals. Already a host of correspondents—special, general, and occasional—have done their best to gratify the public appetite for news from the little known land where our soldiers are encamped, and writers in magazines and reviews are doing their best to popularize such knowledge of Abyssinia as we possess. The *Argosy*, now under the editorial direction of Mrs. HENRY WOOD, lately had the fortune to issue a narrative by one of the captives. This is sure to be eagerly read, and will, no doubt, introduce this magazine to many new readers, who will also find in it a good supply of other pleasant reading.

At the meeting of the Royal Geographical Society last week, two very important communications were read from Mr. CLEMENT'S MARKHAM, who has been sent out by the Society. Mr. MARKHAM deals principally with the physical geography and the geology of the localities he has hitherto explored, although many other subjects are alluded to, and that in a manner likely to attract attention. His communications are very ably arranged, being divided into sections, each of which is devoted to a certain portion of the route, or to some particular locality. Of course, Annesley is the first part to claim attention, and Mr. MARKHAM confirms other observers in its deceptive appearance from the anchorage, where it looks green and pleasant, but, on landing, is found to be a sandy plain overlying clay. This plain is, however, intersected by dry beds of torrents, overgrown with such plants as salicornia, accacia, and calotropis; and there are also patches of coarse grass. Mr. MARKHAM found broken pieces of fluted columns, capitals, and fragments of a very dark-coloured volcanic stone on some of the mounds. On excavation, the bronze balance and chain of a pair of scales were brought to light, forming the first discovery in the ruins of a commercial city with which the Greeks, in the days of the Ptolemies, carried on trade. At a little distance from the mounds on the right bank of the Hadas, one of the streams which crosses the plain, is the modern village of Zoulla. The Shohoes inhabiting it are a black race, with rather woolly hair; they are further described as small-boned, but their features are said to be regular, and, in some instances, even handsome. They wear cotton cloth round the middle, and a cloak of the same material. Their head and feet are bare, and they are armed with a curved sword, a spear, a club, and a leather shield. They cultivate a little jowaree, and have cattle of a very diminutive breed, asses, horses, and sheep. Their huts are scattered over the plain. Their burial places are extensive, and appear to be used by the people for a considerable distance around them, there being only two between the coast and the entrance to the Senafé Pass. The graves are marked by oblong heaps of stone, with upright slabs at each end. A hole is dug about six feet in depth, and at the bottom a small cave is excavated for the reception of the body. The tomb is closed with stones, and the hole leading to it is filled up. The plain around Zoulla abounds in game—antelopes, gazelles, hares, bustards, and spur-fowl. During rains, the game is said to be still more plentiful. The coast rains usually commence in December, but there is no great fall.

A very interesting section is that devoted to the exploration of the county around Annesley bay, and the trip from Zoulla to Howakel bay. A running stream was found forty-nine miles from the sea, and fourteen from the mountains. Near a settlement in this district was a great salt plain, which may be looked upon as the remains of a vast lake outlet, the intense heat rapidly evaporating all the water. The stream, we have mentioned, is called the Ragolay, and it seems that the eastern drainage of the whole Abyssinian water-sheet from Senafé to Atebi (seventy geographical miles distant from each other), consists of its tributaries. In one part, the Ragolay was found to be perennial, but in its course towards the sea it dips into a depression 193 feet below the sea-level. This depression probably arises from past volcanic action.

The other sections of Mr. MARKHAM'S reports are equally interesting.

ABOLITION OF PLURALISM IN THE DUBLIN HOSPITALS.

As many of our readers are doubtless unacquainted with a recent reform movement in some of our Dublin medical institutions, amounting almost to a professional revolution, we propose to give them information respecting the transactions above referred to, and to give our opinion thereon. Some months ago the Superioress of the Convent of Mercy in Dublin, resolved to put an end to pluralism in hospital appointments, so far as her authority and influence extended. Accordingly, she intimated to a gentleman of eminence, who held the post of Clinical Surgeon in the Mater Misericordiæ Hospital, as well as in the Jervis-street Infirmary, her opinion that, for many reasons, it was desirable that he should make his choice between the hospitals in question. This he immediately did, resigning his post in the Jervis-street Infirmary, and so creating a

vacancy, which was filled by the appointment of Mr. MELDON.

Soon after, a vacancy occurred in the surgical staff of the Richmond Hospital, by the retirement of Mr. FLEMING, whose place the Governors filled by appointing thereto Mr. WILLIAM STOKES, Surgeon to the Meath Hospital, with the distinct proviso, on the motion of Sir D. CORRIGAN, that before the opening of next winter session, Mr. STOKES shall wholly resign his surgeoncy to the latter institution.

On the 1st of February the Board of Trinity College passed the following resolution :—

"That in future no University Professor in the School of Physic shall be allowed to hold an appointment as Medical Officer to any Clinical Hospital other than Sir Patrick Dun's Hospital. *This rule not to affect existing arrangements.*"

We understand that this resolution was passed with special reference to Dr. BENNETT, University Anatomist, who is Surgeon to Sir Patrick Dun's Hospital *ex officio*, under the provisions of the Amended School of Physic Act of 1867. That gentleman made a request that he should be allowed to compete for the vacancy in the Surgical Staff of the Meath Hospital ; but his request was not granted.

On the 21st of February, the President and Fellows of the King and Queen's College of Physicians passed a similar resolution to that just quoted with reference to the four Professors of the School of Physic appointed by them.

During the course of the debate on this question, we understand that weighty reasons were advanced by some of the Fellows in favour of the proposed resolution ; while it was alleged, on the other hand, that however excellent as an abstract principle the proposed change might be, yet that *at present* it would be found to operate prejudicially, by shutting out from competition for the professorships the class of men who are best fitted to fill the most important office of clinical teacher.

However, the reasons that a man cannot be in two places at one time, that he cannot teach two clinical classes properly, that sometimes circumstances will arise in which the pluralist can hardly act rightly with reference to one institution, except by preferring its interests to those of the other ; and that by the system of pluralism young men of promise and ability are debarred from rising in their profession, and throwing the energy and zeal of younger years into the cause of medical science : all these reasons prevailed, and the resolution was, as we are informed, passed unanimously. In estimating the full meaning of this resolution, the actual clinical state of Sir Patrick Dun's Hospital should be remembered. Of its three *ex-officio* physicians, Dr. BANKS is Physician to the House of Industry Hospitals, while neither Dr. LAW nor Dr. AQUILLA SMITH are attached to any other *clinical* hospital (*i.e.*, to a hospital where medicine and surgery is taught to students). Of its three *ex-officio* surgeons, Dr. R. W. SMITH is Surgeon to the Richmond Hospital, Dr. MCDOWELL is *Physician* to the House of Industry Hospitals ; while Dr. BENNETT is Surgeon to Sir Patrick Dun's, and to that only.

This system has not been found to work well at the last-mentioned institution. So badly has it operated indeed, and so sensible have the Board of Trinity College been of its defects, that they have ineffectually offered one of the surgeons above-mentioned, a man of encyclopædic learning in surgery, an additional endowment of £100 a-year, provided he would resign his other clinical post, and adhere to Sir Patrick Dun's only. But to return to our narrative :—

During the course of the debate at the College of Physicians on the 21st ult., and before any resolution had been arrived at, Professor BANKS tendered his resignation of the King's Professorship of Physic, which he has most ably filled for eighteen years. He was understood to state his reason for doing so to be this : that he had intended resigning within a few months, but, that the force of the arguments to which he had listened was so great, and the expressions of opinion were so general, as to convince him that he had best do all he could to support the unmistakable opinion of his brethren by refusing to take advantage of the saving clause in favour of vested rights. Dr. BANKS's most honourable conduct in this matter cannot be sufficiently praised or held up as an example for others to follow. He was notably most regular and zealous in the discharge of his clinical duties at Sir Patrick Dun's Hospital. The College of Physicians, at its meeting held on the 28th ultimo, accepted his resignation with the understanding that he shall hold his office until the beginning of May, after which three months' notice of an election to the professorship will be given. The election will probably occur in August, and as the place is worth nearly £400 a-year, and will probably increase in value, of course there will be many candidates. The competition is open to all, but as the electors are the Fellows of the College of Physicians, it is most likely that they will, as heretofore, elect one of their own body. Indeed, to do otherwise would be to admit that the ancient and learned College of Physicians of Dublin valued the attainments of their members at a remarkably low rate.

The new professor ought to be a man of some standing and clinical experience; of proved ability as a speaker and writer; and possessed of that courteous and affable demeanour towards students, for which Dr. BANKS has always been highly esteemed by his pupils.

On the 29th ult., the Board of Trinity College appointed the eminent ex-President of the Royal College of Surgeons, Mr. BUTCHER, to a surgical post in Sir Patrick Dun's Hospital, with the full consent of the governors. Mr. BUTCHER will be a salaried officer of the Board of Trinity College, and will have certain surgical beds assigned to him; but will not (so far as we have heard) hold any official title, or interfere with or displace any of the existing surgeons. By clause 4 of the School of Physic Act of 1867, the Board of Trinity College can appoint a clinical surgeon to fill the place of one of the *ex-officio* surgeons who may neglect his duty, and the Fellows of the College of Physicians have a similar power as regards the Physicians. Mr. BUTCHER is not, however, appointed under this clause; and it is not easy to see what his status will be, considering the Act of 1867 and its stringent provisions. He will have to resign his place as Surgeon to Mercer's Hospital.

We have now fully described the recent reform movement as regards the Dublin Hospitals ; and it only remains for us to express our opinion thereon. We think the movement fair and just to the public, the sick, the hospitals, and to the profession. There is, however, one illiberal monopoly still retained in connection with Sir Patrick Dun's Hospital to which attention ought to be called. We refer to the compulsory attendance of students of the School of Physic at that institution for one year, and at a higher rate of fees than is charged at other equally good clinical hospitals in Dublin.

We know this to be felt by students as a great grievance, and it is the more indefensible because it is entirely contrary to the liberal spirit which has dictated all the recent reforms in the School of Physic. Formerly no Dublin lectures were recognised by the University of Dublin save its own; and, therefore, the monopoly complained of was quite in keeping with that system. Now, however, all recognised Dublin lectures are received by the University; and there ought to be a thorough going free trade in clinical lectures also. Let students go where they get, or think they get, the best value. When the teachers know this they will act accordingly.

This monopoly is not required by Act of Parliament, and it may be abolished to-morrow if the Board of Trinity College and the College of Physicians agree to do it. On the other hand, we must in fairness state that clause eleven of the School of Physic Act of 1800 is still in force. By it every student in Arts of Oxford, Cambridge, or Dublin, of two years' standing and upwards, must pay three guineas to Dun's Hospital for one year's clinical attendance, and non-students in Arts *twenty guineas*; both of these sums are *in addition* to the nine guineas which students of either class must pay to the clinical lecturers for the same time.

If this clause be rigidly enforced, Sir Patrick Dun's Hospital must, before long, be closed to all but students of the three older Universities—that is, to the few; and it is surprising that it was not repealed in 1867, along with other clauses which prescribed regulations respecting lectures and lecturers, not a whit more unsuitable to the year of grace 1868 than this clause is.

It is saidt hat the College of Physicians are contemplating the institution of a new order of "Members," a middle class between the Fellows and Licentiates. If this be carried into effect, it will require some legislative enactment to allow the new order to be registered. In whatever Act a clause of this kind shall be introduced, a clause repealing section eleven of the Act of 1800 might also be inserted with advantage to the Dublin School of Medicine. "The School of Physic in Ireland" has no reason to fear competition, and ought to get rid of illiberal monopoly.

Notes on Current Topics.

The Public Health.

The returns of the Registrar-General for the week ending on Saturday, Feb. 22nd, were the following,—In London and 13 other large towns in the United Kingdom, 4655 births, and 2955 deaths were registered. The annual rate of mortality was 24 per 1000 persons living.

"The annual rate of mortality that week was 22 per 1000 in London, 25 in Edinburgh, and 33 in Dublin; 24 in Bristol, 21 in Birmingham, 23 in Liverpool, 28 in Manchester, 26 in Salford, 21 in Sheffield, 23 in Leeds, 23 in Hull, 20 in Newcastle-upon-Tyne, and 28 in Glasgow."

There were registered in London the births of 2315 children, of which 1159 were boys, and 1156 girls. The average number corrected for increase of population is 2251, in the corresponding weeks of the ten preceding years. The deaths registered were 1336, being 243 less than the estimated number for that week, in the ten previous years.

From zymotic diseases the deaths were 261, from small-pox 26, from measles 28, from scarlatina 30, from diphtheria 11, from whooping-cough 50, from fever 48, and 9 from diarrhœa. One hundred and forty-one deaths occurred from phthisis, 143 from bronchitis, 73 from pneumonia and 52 from diseases of the heart.

Several deaths occurred from accidents, and one female died of "paralysis," accelerated by fright from the explosion at the House of Detention, in Clerkenwell. Another is registered as dying in St. Joseph's Home, Notting-Hill, at the advanced age of 102 years.

Fever.

In the official records of the health of London, there are peculiarities which show the conditions of typhus as it makes its appearance in the several metropolitan districts. Thus, it was most prevalent for the last five weeks, and the mortality it occasioned was the greatest, in the poorest and most densely crowded localities. At the east end the average number of deaths from this disease was 9·4 to 10,000 of the population, per annum; in the central portion or the city proper, it was 9, while in the south, west, and north, it was only 6·8, 4·6, and 4·2, respectively.

"Since the commencement of the present year the deaths in London have averaged 39 per week, which is 13 below the average number of the corresponding period of the last 10 years, so that there is some indication of an abatement of this dreadful disease, which has of late years so ravaged the metropolis, particularly the east of London, where it has shown itself to be a disease of pauperism. Turning to the returns for the entire country, it is seen that fever always prevails epidemically in England and Wales. The large number of 177,288 lives were cut off by these forms of fever—typhus, typhia, and typhinia—in the 10 years, 1856-'65, averaging 17,729 deaths per annum. If the mortality of cases of fever in the country at large is truly represented by that of the London Fever Hospital, then it may be inferred that as 17,000 persons died in the different fever fields of England every year, at least 150,000 persons were attacked by these fevers annually."

According to Dr. Murchison, three varieties of fever which used to be returned under the general head of typhus, may be distinguished, and traced more or less distinctly up to their several causes. The first of these is typhus with blood spots on the skin, which is exceedingly fatal. This type is usually found where the population is excessive, or at least crowded, and it seldom attacks the patient twice. The second form is typhinia or continued fever, described as relapsing or famine fever. It may usually be traced to a specific zymotic matter, which is generated wherever human beings are collected together in a dirty condition, with inferior and insufficient food, and an inadequate supply of fresh air. The third variety is typhoid fever, or typhia, which is marked by an eruption of rose spots on the skin. So frequently this form takes its origin from the effluvia of night soil, that Dr. Murchison has called it pythogenic fever. Fæcal fermentation may also produce it spontaneously, or it may be communicated by the sick to the healthy, or by smells from the air of cesspools and drains. Next to consumption, typhia is most fatal to persons in the prime of life.

University of Oxford.

To-morrow, the 5th instant, Dr. Rolleston, Linacre Professor of Anatomy and Physiology, will resume the course of lectures which he commenced this term.

University of Cambridge.

On the 31st an examination for four minor scholarships will be commenced in Downing College. For one of these the natural sciences, in connection with medicine, will be required—chemistry, comparative anatomy, and physiology. Persons who have not entered at any college are eligible, but the emolument, £40 per annum for two years, will not be given until the minor scholar has entered at Downing College. Further information may be had of the tutors.

The Queen's Book.

A copy of this work has been presented by Her Majesty to most of the hospitals of London. Each copy bears the Royal autograph.

Coroner for West Middlesex.

This matter seems still undecided for, as we stated last week legal proceedings have been commenced. Several meetings have also been held by Dr. Hardwicke's friends, and it has been resolved to raise a public subscription to defray the expenses of an appeal to the law court, and probably, also, of the late election expenses. To us the whole affair forcibly illustrates the folly of leaving the election to a judicial office in the hands of the freeholders of the district.

Poor-law Medical Adviser for London.

The position to which Dr. Edward Smith has been lately appointed in connection with the provincial administration of the Poor-law will be occupied, as regards the Metropolitan District, by Dr. Markham, who has been appointed to that duty by the Poor-law Board. We consider it a matter for congratulation to the profession when a gentleman who enjoys so entirely the public confidence is selected for such a position, and we recognise in the choice of such men as Dr. Markham and Dr. Smith a determination to entrust important public duties to the best men who can be procured—a policy which, if persisted in by those in authority, cannot fail to be attended with the best results on the efficiency of the public service.

Poisoning—Wholesale, Retail, and for Exportation.

Under this title there is a lively article in the first number of the *Serio-Comic Magazine* devoted to the abominable adulterations of food practised so constantly by various dealers. Light and amusing essays of this kind are, perhaps, more read than systematic exposures of these frauds, and their writers are, therefore, entitled to the thanks of the community for popularizing facts which are too apt to be forgotten after scientific men have had their say. We welcome the new serial as we thus announce the article in question as the one most within our sphere. The public cannot too constantly be reminded of the dangers that arise from the rapacity of unprincipled traders.

Medical Patents.

Our attention has been recently directed to a passage in an old number of the *British Quarterly Review*, concerning Wollaston and his application of his scientific knowledge to the acquisition of wealth. As the reviewer's remarks have a direct bearing on the subject of medical patents, recently discussed in this journal, we lay them before our readers.

"Wollaston was fond of amassing money. There have not, indeed, been wanting accusations to the effect that if he had sought less after wealth, he would have done more for science. How far these charges are true we have no means of judging, as it does not appear from the published accounts in what exact way he made his money. That it was chiefly by the platina process is certain, but whether he engaged in the manufacture himself or only superintended it, we do not know. On this point we would only remark, that there is something, to say the least of it, very partial and unfair in the way in which obloquy is cast upon men of science, if they appropriate to themselves some of the wealth which their discoveries procure for others. If a successful naval or military hero is lavishly pensioned out of the public purse no one complains. It is not thought strange that a great painter or sculptor, while he justly declares his productions are worth untold gold, should, nevertheless, demand a modicum of coin from his admirers. Neither is the poet or musician blamed who sells his works to the highest bidder. But if a chemist, for whom there are few pensions and no peerages, thinks to help out a scanty or insufficient income, by manufacturing gunpowder, like Davy, or magnesia, like Henry, or malleable platina, like Wollaston, or guano, like Liebig, the detractors assail him at once. He has lowered the dignity of his science, and, it would seem, should starve rather than degrade his vocation. That vocation, so far at least as the practical fruits of his own labours are concerned, is to be a kind of jackal to start game which others are to follow—a beagle to hunt down prey which others may devour. Surely there is but scanty justice here, and some forgetfulness of a sacred text:—'Thou shalt not muzzle the mouth of the ox that treadeth out the corn, &c.'" —*From the "British Quarterly Review," number* vii. *(August,* 1846*), Article* 3, *p.* 104.

Good Wine in Bad Bottles.

Enough has been said and written of late on the question of wine, to make us suspicious of every bottle which is brought to table. No one can tell, even though the price he pays ought to be sufficient to indemnify him, still no one can tell, as he drains the bright glass which he has raised to his lips, that he is drinking the pure juice of the grape. So cleverly has the rich and delicate beverage been simulated, that none but a real connoiseur can detect the imposture; and the ordinary consumer must trust altogether to the honesty of his merchant for the purity of his wine. All this we have been lately led to believe and expect, but there is one fact in connection with the wine trade which we candidly confess we have never even dreamed of. We learn from a French journal that wine in bottle is frequently spoilt from the bad quality of the glass of which the bottles are made. Glass, as every one knows, is produced by proportionate quantities of white sand, and the alcalis, soda, and potass completely fused together. This requires a considerable heat, and the expense of the glass is raised by the cost of the fire which is necessary in its manufacture. This can be lessened by increasing the proportion of the alcalis, by which the melting process is more easily accomplished, and less firing required. But glass thus made is more or less soluble, particularly by tartaric acid, which is one of the elements of wine. A merchant found that the glass of a large number of the bottles, containing wine of a superior quality, had become opaque, and he commenced an action against the person of whom he had purchased the bottles. The court ordered an enquiry: an able chemist was employed, and discovered that the wine had been neutralized by the alcali in the glass.

We give our readers the benefit of the information we

have received. Everybody has read of new wine, in times gone by, being put into old bottles, and the bottles bursting, consequently the wine being lost. By more recent invention we obtain a bottle which can stand the test of age, and may be used over and over again, but, unfortunately it has at length been found that our wine is none the safer for all that. For though we are not astonished to find it sometimes unexpectedly covering our cellar floors, and the glass of the bottles lying in fragments around; yet, when we are thinking to regale our friends, and treat them with a splendid aroma, such as is rarely to be met with anywhere, we may have to sustain the mortification of presenting them with a glass of something which can scarcely be recognized as wine, and is not worth the price of the bad bottle in which it has been kept.

Hospital Changes in Dublin.

THE vacancy in the Medical Staff of the Meath Hospital, of which we informed our readers some weeks since, as having been caused by the transference of Mr. Stokes to the Richmond Hospital, remains yet unoccupied, and the pretensions of many candidates are canvassed, the religious element which rules so many appointments in Ireland entering to some extent into the conjectures. We believe that Mr. Stokes will discharge his duty as surgeon for the ensuing month, and that at the termination of that period the appointment will be made. The following is the clause of the Act of Parliament under which the selection will be made :—

"It may be lawful for said physicians and chirurgeons, or a majority of them, to elect a physician or chirurgeon in the room of any physician or chirurgeon, who from time to time by death, removal, or otherwise shall make a vacancy in said hospital, in consideration of their having served said hospital *gratis* these seventeen years past, and their having had a principal share in the support thereof during that period, and in erecting said building, as well as the relinquishing in behalf of themselves and their successors in said hospital all claim or title to the annual salary of one hundred pounds, which they otherwise would be intitled to in consequence of said act; any thing heretofore or in said act mentioned to the contrary notwithstanding."

The succession to the King's Professorship of Medicine, vacant by the resignation of Dr. Banks, will probably lie between Dr. Gordon, Dr. W. Moore, Dr. H. Kennedy, and Dr. Freke. Should the office be sought by Dr. Gordon, we believe his claims would be very favourably regarded, but if he should be elected he would become *de facto* physician to Sir Patrick Dun's Hospital, and must thereupon resign his present connection with the Richmond Hospital, which restriction may render his candidature doubtful. The claims of Drs. Moore and Kennedy are also very favourably spoken of, and there are other candidates whose pretensions do not entitle them to appear in the list of claimants.

A further change in the distribution of hospital appointments in Dublin has been caused by the appointment of Mr. Butcher to Sir Patrick Dun's, and his consequent retirement from Mercer's Hospital.

We learn that Mr. Butcher will join Sir Patrick Dun's as an extra surgeon, and not as one of the regular staff.

The British Lying-in Hospital.

WE understand that on yesterday (Tuesday) evening Dr. Eastlake brought under the notice of the Metropolitan Branch of the British Medical Association, the complaint of the treatment which he has received from the Governors of the British Lying-in Hospital. The late hour at which the proceedings terminated, make it impossible for us to report them in this issue of our journal. We have received a note from Dr. Edmunds in reference to our comments on his letter, published in our last. We regret that we are unable to insert it in the present issue.

THE President, Mr. Hilton, and the Vice-Presidents, Messrs. Quain and Cock, of the Royal College of Surgeons of England, together with Mr. Charles Hawkins, Mr Hancock, Mr. Buck, and Mr. Spencer Smith, have been appointed a committee to take into consideration the financial condition of the college, which is found to be most unsatisfactory. The expenditure in examinations—including remuneration to the examiners—on the museums and on the library are great and increasing, while the diminished number of candidates for the diplomas of the college renders its income smaller.

DR. OCTAVIUS STURGES, whose contribution to St. George's Hospital Reports we last week reviewed, has been elected Assistant-Physician to the Westminster Hospital. Dr. Sturges already held the post of Physician to the North London Consumption Hospital.

DR. F. SIMMS has been appointed Physician to the West London Hospital. Dr. Simms is the author of a little work entitled "A Winter in Paris."

VACCINATION REGULATIONS OF THE PRIVY COUNCIL.

AT the Council Chamber, Whitehall, this 18th day of February, 1868, by the Lords of her Majesty's Most Honourable Privy Council. Present—Lord President, Lord Robert Montague, Mr. Cave.

To the Guardians of the Poor of all Unions and Parishes, to all Public Vaccinators, and to all others whom it may concern.

The Lords and others of her Majesty's Most Honourable Privy Council (of whom the Vice-President of the Committee of the said Privy Council on Education is one) acting under the authority of the Vaccination Act of 1867, and all other authorities in this behalf, do hereby make and issue the following regulations, in addition to those already in force, for securing the efficient performance of public vaccination, and in respect of the revaccination of persons who apply to be revaccinated, that is to say:

I. *Places and Times for Vaccination under Contract.*

1. Except where the Privy Council, for reasons brought to its notice, sees fit in regard of any particular district to sanction a system of domiciliary vaccination, every vaccination district shall have in it at least one public station appointed for the performance of the vaccinations under contract; and where any such station has been provided for a district, no person resident within two miles thereof, and not being an inmate of the workhouse, shall be vaccinated under contract elsewhere than at such station, unless the vaccinator in the particular case be of opinion (which, if so, he is hereby required to note in his registrar), that for some special reason, the person whom he proposes to vaccinate cannot properly be vaccinated at the station.

2. Except under special authorisation from the Privy Council as aforesaid, or in so far as may be expedient at times when there is immediate danger of small-pox, vaccination under contract shall not be appointed to be performed at any station oftener than once a week.

3. And in any future contract concerning a vaccination district which is partly or wholly within a town, there shall not, except under special authorisation as aforesaid, be appointed within the town more than a single station, for the performance of the vaccinations of the district.

II. *Vaccination Districts in Towns.*

No part of the metropolis, or of any city, or municipal

borough, or town corporate, or other town, shall, in respect of any future contract, form by itself, or with any rural place, a separate district for vaccination, except with the approval of the Privy Council, unless it contain an estimated population of at least 25,000 persons, or else be as much of the metropolis, city, borough, or town as is for purposes of vaccination under the control of one board of guardians.

III. *Office of Public Vaccinator.*

After the expiration of the month of June next, no two or more persons shall be allowed to act severally as vaccinators under contract in anyone and the same part or district of any union or parish.

IV. *Revaccination.*

The performance of revaccination by the public vaccinator on persons applying to him for that purpose shall be limited in each case by the following conditions:—(1) that, so far as the public vaccinator can ascertain, the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully revaccinated; and (2) that, in the public vaccinator's judgment, the proposed revaccination is not for any sufficient medical reason undesirable; and (3) that the public vaccinator can afford vaccine lymph for the purpose without in any degree postponing the claims which are made on him for the performance of primary vaccination in his district.

(Signed) ARTHUR HELPS.

Correspondence.

LEAVE OF ABSENCE FOR INDIAN MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I forward to you an Indian paper; the extract which I have marked from the *Delhi Gazette* I trust you will deem worthy of comment in THE MEDICAL PRESS AND CIRCULAR. Nothing can be more unjust than to exclude medical officers from the benefits of the proposed "Furlough Rules," for of all classes, in H.M.'s Indian Forces," none are more exposed to the baneful effects of climates, as the hottest winds, or heaviest rain can plead no apology for their non-performance of duty.—Faithfully yours,

G. MORROGH, M.D.,
Retired List, H.M. Indian Forces.

"The *Delhi Gazette* complains that, while the subject of 'Furlough Rules' is engaging the attention of the Secretary of State for India, and much thought by the Indian press is devoted to the necessity of the amelioration of those rules, we find the Government of India running directly counter to the effort by refusing to grant to regimental surgeons the same privileges, miserable and derogatory as they are, as are granted to regimental officers, who are able, on sick certificates to proceed to England for twenty months without losing their regimental position. We know well enough that it is contrary to the old order of things for medical officers to visit England on any leave whatever without losing their charge, whether civil or military. But the old order of things has in a great measure been swept away, and we wonder greatly that the Governor-General in Council should withhold, in spite of the solicitation of his Excellency the Commander-in-Chief, the very same concession which the State accords to other regimental officers. Why veto so trivial a boon? Why draw a marked difference between the surgeon and the other officers? But so it is, and so to the end of the chapter it will be. Other officers may go to England on sick certificate, and indeed enough go for twenty months, and return to their home in India—their regiment; but Sir John Lawrence rules that *regimental medical officers proceeding to England for twenty months on sick leave are not to return to their charges.* We confess we think this rather a hard, unnecessary, ungraceful blow. And it is a blow which by many will be keenly felt. For even if the boon sought under the auspices of Sir William Mansfield had been granted, it would have been after all but a miserably trivial concession, as the concession would in no way have involved the Indian Government in any monetary loss or monetary consideration."

[THERE is, we believe, no more frequent cause of jealousy and want of cordial feeling between combatant and Medical Officers than the invidious distinctions habitually and more unwisely introduced between them, by the authorities in the matters of discipline and privilege. Medical officers would be less than human if they did not feel that such differences are the result of an inbred hostility to the medical service, on the part of those who frame the rules, and who have been prejudiced against the noncombatant services by a similar policy; while it would be unreasonable to imagine that combatant will not take the cue from their superiors in looking down on their medical brethren.

Such a regulation as the foregoing hardly admits of any other explanation than a determination in the Governmental authorities to thwart the comfort and interest of their Medical Officers on all occasions. It is not the first time that such an unfortunate leaning has been evinced, and, in giving effect to such a prejudice, the authorities ought to be aware that they run counter to the feeling of the public, which has found, and will still find, vigorous and damaging expression through the public press.—ED. M. P. & C.]

Parliamentary Intelligence.

HABEAS CORPUS SUSPENSION (IRELAND) ACT CONTINUANCE BILL.

ON the order of the day for going into committee on this bill,

Mr. MAGUIRE said it was of the utmost importance to know something of the management of the Mountjoy Prison, where most of those taken up during the suspension of the Habeas Corpus Act were confined. An admirable physician, Dr. M'Donnell, who made certain important recommendations respecting the dietary and treatment of the prisoners, had, from one cause or another, ceased to be in the public service. His successor was Dr. Young. In the *Freeman's Journal* there was a report of an inquest held on Friday, 21st ult., on the body of a prisoner, Matthew Lynch. Up to the last moment the unworthy successor to Dr. M'Donnell appeared to have known nothing of the disease from which Lynch was suffering, which was pulmonary consumption; and the jury returned a verdict that the poor man should have been sent earlier to the hospital and that the doctor should be more attentive to external patients, meaning the unfortunate wretches confined in the miserable cells which were spoken of at the inquest. By what juggling did it happen that a humane man had been dismissed, and a man publicly branded by the verdict of a coroner's jury had been substituted in his place?

Lord MAYO—And now with regard to Dr. M'Donnell, who is a man of very high professional attainments, and for whom I have the most profound respect. Dr. M'Donnell on one or two occasions differed from the Directors of Convict Prisons, but they were not differences of a serious kind, and were generally settled by amicable discussion. But the fact is that the arrangements with respect to Dr. M'Donnell's services were such as did not exist in any other convict prison in the whole of her Majesty's dominions, and I say that the Medical Officer of Mountjoy male prison, having a large private practice to attend to, could not give that attention to the requirements of the prison which was wanted, and consequently the arrangement was exceedingly unsatisfactory. Now, I believe that an abler man than Dr. M'Donnell never discharged the duties of physician to a convict prison; but, looking to the nature of the duties which the doctor in such an establishment has to perform, it was impossible that they could be attended to by a man in private practice. What happened? Dr. Banon, the physician of the female convict prison, died, and an opportunity offered for consolidating the duties of the male and female establishments, and obtaining one medical officer for both. Representations were made to me by the Directors of Convict Prisons that it would be for the interest of the public service that the two offices should be held by one man. It was a considerable time before I acceded to that representation. I made inquiries as to what was done in England. I consulted Colonel Henderson and other gentlemen of great authority in such matters, and they all agreed that a worse arrangement than that of having a gentleman in private practice medical officer to a convict prison could not be; that the thing had been tried before; and that in every convict establishment of sufficient size, a medical man who had given up all his time to his duties in the prison was employed. Having this information at my disposal, and having to choose a successor to Dr. Banon, I told Dr. M'Donnell frankly what my opinions were. He did not altogether agree with me, but he

told me that his own practice was increasing so rapidly that it was very likely at a very early period he would find it necessary to retire from attendance at Mountjoy. That being the case, I had nothing to do but to take the advice given by such high authorities in the convict service, and appoint a resident medical officer for the male and female prisons at Mountjoy. Now, that is the whole story, and a more unfounded calumny was never propagated—and it was made the most of by the Fenian papers—than that Dr. M'Donnell was dismissed, and another gentleman appointed in his place, because he refused to sanction the very arbitrary and severe treatment of the prisoners confined under the Habeas Corpus Suspension Act. I know the hon. gentleman did not make such a statement in this house. [Mr. Maguire—"I did not say so."] I know you did not say so, but pages upon pages about it have been written in Ireland, and I believe that many have been led to accept it as a fact. Dr. Young, who has been appointed as medical officer to both the male and female prisons of Mountjoy, is a gentleman with whom I happen to be personally acquainted, and a more humane, an abler man, or one more competent to discharge his duties does not exist in any convict prison in the kingdom. And as long as Dr. Young remains in Mountjoy I am quite sure that neither the hon. gentleman nor anyone else will be able to prove harshness on his part to any particular prisoner. Mention was made to me in a communication from Dublin about the case to which the hon. gentleman has called attention, and I wrote for full and accurate information on the subject. I shall only say that in this matter, and in every other, I shall take care that every charge of this kind shall be thoroughly inquired into.

Mr. Bagwell expressed his opinion that it would be better to have a medical officer attached to Mountjoy who would not be entirely at the beck of the government. When he found that the jury had returned a verdict that the man into whose death they inquired, ought to have been sent earlier to hospital, and that the doctor should have been more attentive to exterior cases, he considered it a very grave matter. No doubt the verdict was a most unsatisfactory one for the medical officer, as it had been returned by a number of independent men upon their oaths, selected by the coroner from the general body of citizens.

The Speaker then left the chair, and clauses 1 and 2 were agreed to.

TROOPS IN THE MAURITIUS.

In the House of Commons, on Friday evening, in reply to a question,

Sir. J. Pakington said that the 86th Regiment had been sent from Gibraltar to the Mauritius last summer, but on arriving at the Cape was detained there in consequence of a serious epidemic then prevailing in the Mauritius. The military authorities here had sent orders to the General commanding at the Cape not to allow the regiment to proceed until he had received intelligence from the Mauritius that it might be done safely. Instructions had been also sent to the General in command at the Mauritius that he was to send to the Cape to have the regiment come off when he thought the epidemic had subsided. In the month of October, General Milman, who commanded in the Mauritius, thought that the fever had so far subsided that there was no danger, and he sent word to the Cape to that effect. As soon as transport could be obtained the 86th were sent on, and they arrived on the 27th of December. But in the meantime, the epidemic had broken out again, and assumed a very grave aspect in the town of St. Louis. Accordingly, when the regiment arrived, it became a matter for very serious consideration whether it could be safely allowed to land. A consultation was held between the General and the principal medical officer, and they decided that the regiment ought not to land. The surgeon of the regiment expressed in writing a very strong opinion that the regiment ought to go back to the Cape. That opinion was communicated to the colonel, but he remonstrated so strongly, solely on the grounds of discomfort and inconvenience in being sent back, that the General changed his mind and allowed the men to land. He took the precaution of sending the regiment as soon as possible to the out-stations, and dispersed the men in the more healthy parts of the island. The result was that up to the 17th of January, three weeks after the landing, only 25 cases of disease had occurred, and he was happy to add that no deaths had taken place. Still he thought it his duty to know why it was that the colonel of the regiment pressed that the regiment should be allowed to land, and why the General changed his mind and suffered the regiment to incur so great a risk. As far as he knew the facts he felt bound to say that the landing was not justified. He was happy to state that with regard to the Artillery and the Engineers the case was not so serious as the hon. gentleman seemed to suppose. He found, speaking of what had occurred in the Mauritius, that up to the 17th of last month, only 10 deaths had taken place in the Royal Engineers and only two in the Royal Artillery. In the 13th Regiment, which had returned last July, no great loss of life had occurred.

Medical News.

Her Majesty the Queen has been graciously pleased to present to the Hospital for Women, Soho-square, through Sir William Jenner, one of the Vice-Presidents, a copy of "Leaves from the Journal of our Life in the Highlands." The fly-leaf bears the following inscription and autograph:—"Presented to the Hospital for Women, by Victoria R." In accordance with her Majesty's wish, the volume has been placed in the library of the hospital for the use of the patients.

Army Medical Department.—25th February, 1868.—The Director-General presents his compliments to the Editor of The Medical Press and Circular, and begs to enclose for insertion a list of candidates of her Majesty's British Medical Service, who were successful at the competitive examination in August, 1867, and who have passed through a course at the Army Medical School, showing the combined results of the examinations, also a list of candidates who competed successfully for appointments as Assistant-Surgeons in her Majesty's British Medical Service at the examination held at Chelsea on 10th instant:—

ARMY MEDICAL DEPARTMENT.

List of candidates of her Majesty's British Service, who were successful at the competitive examination in August last, and who have passed through a course at the Army Medical School, showing the combined results of the examinations:

Name.	Studied at.	No. of Marks.
Corbett, R. de la C. ...	Cork and Dublin. ...	5197
Wollowicz, Count C. M. Y.	Munich, Paris, & St. Petersburg	4966
Corbett, J. ...	Dublin. ...	4930
Maclachlan, H. K. ...	Glasgow. ...	4904
Pollock, C. F. ...	Dublin. ...	4690
Scott, R. J. ...	Aberdeen and London. ...	4486
Cocksedge, T. A. J. ...	Cambridge and London. ...	4471
McEwen, D. ...	Aberdeen. ...	4460
Macmullen, R. ...	Dublin. ...	4351
Sankey, G. F. ...	London. ...	4314
Randall, J. G. ...	Do. ...	4214
Cuthbertson, R. A. ...	Dublin. ...	4212
McNamara, W. H. ...	Cork and Dublin. ...	4132
Gallwey, M. M. ...	Cork. ...	4125
Lyons, F. ...	Do. ...	4074
Hare, G. ...	Do. ...	4020
Stewart, J. S. ...	Edinburgh and London. ...	3610
Gunning, J. D. ...	Belfast and Dublin. ...	3543
Clarke, T. H. M. ...	Dublin. ...	3490
Anthony, M. ...	Cork and Dublin. ...	3435
Leake, J. R. ...	London. ...	3372
Rae, J. R. ...	Dublin. ...	3360
Hunter, J. H. ...	Cork. ...	3321
Wilson, W. D. ...	Dublin. ...	3294
Cotter, S. K. ...	Do. ...	3278
Barroll, G. W. ...	London. ...	3251
Barry, J. ...	Cork. ...	3250
Bennett, W. F. ...	Cork and Dublin. ...	3226
Anderson, J. A. ...	Belfast and Dublin. ...	3211
Riddick, J. ...	Dublin. ...	3172
Anderson, D. H. B. ...	Edinburgh and London. ...	3131
Waylen, F. H. ...	London. ...	3025
Morgan, H. ...	Cork. ...	2969
Crowe, J. D. ...	Dublin. ...	2850
Anderson, A. ...	Montreal. ...	2790
Fitzgerald, E. M. D. ...	Cork and Dublin. ...	2785
Kingston, T. ...	Do. ...	2758
Popham, S. ...	Dublin. ...	2706
Shaw, G. ...	Do. ...	2678
Heather, D. C. W. ...	Do. ...	2665
O'Grady, J. J. ...	Do. ...	2477
Morgan, R. ...	Cork. ...	2415
Maunsell, R. F. ...	Dublin ...	2370
Buscarlet, J. A. ...	Edinburgh. ...	2365
Duncan, G. ...	Montreal. ...	2307
Fagoe, H. ...	Dublin. ...	1460

ARMY MEDICAL DEPARTMENT.

List of gentlemen who competed successfully for appointments as Assistant-Surgeons in her Majesty's British Medical

Service, at the competitive examination held at Chelsea on 10th February, 1868 :—

Order of Merit.	Names.	Marks.
1.	Lewis, T. ...	2170
2.	Fraser, J. ...	2150
3.	Dobson, G. E. ...	2125
4.	McSwiney, E. N.	1975
5.	O'Brien, J. A. J.	1975
6.	Walker, J. ...	1905
7.	Jones, C. E. ...	1900
8.	Williamson, N. A.	1870
9.	Leader, J. ...	1860
10.	L'Estrange, A. H.	1855
11.	Kirwin, A. ...	1850
12.	Ussher, J. H. ...	1835
13.	Ryan, G. W. ...	1810
14.	Fitzgerald, R. G.	1790
15.	Anderson, R. F.	1785
16.	Gasteen, W. C.	1705
17.	Conyers, J. S. ...	1690
18.	Brown, A. L. ...	1655
19.	Reynolds, J. H.	1640
20.	Rahilly, J. R. ...	1600
21.	Knox, J. M. ...	1595
22.	Craig, R. M. ...	1565
23.	McRobin, A. A.	1565
24.	Garde, W. H. ...	1540
25.	Jennings, C. B.	1465
26.	L'Estrange, F. A.	1410
27.	L'Estrange, G. W.	1410
28.	Geoghegan, W.	1395
29.	Samuels, W. F.	1385
30.	Thornton, D. ...	1385
31.	Letchford, J. ...	1355
32.	Waghorn, F. ...	1345
33.	Burford, H. H.	1295
34.	Frazer, P. F. ...	1285
35.	Parke, Duke ...	1255
36.	Jackson, T. W.	1250
37.	Winn, A. N. ...	1185
38.	Campbell, W. J.	1160
39.	Eager, O. S. ...	1140

UNIVERSITY OF DUBLIN.—The Spring Commencements were held on Shrove Tuesday, February 25, when the following medical and surgical degrees were conferred :—

NOMINA CANDIDATORUM.

Baccalaurei in Medicinâ.—Thomas Whiteside Hime; Joseph Lawson; Arthurus Vernon Macan; Robertus M'Morran; Jacobus Franciscus Ryan; Alexandrus Haldane Stokes; Joseph Manly Tabuteau.

Magistri in Chirurgiâ.—Fredericus Ferdinandus Hill; Henricus Harris Langstaff; Arthurus Vernon Macan; Jacobus Franciscus Ryan; Alexandrus Haldane Stokes; Johannes Todhunter.

Doctores in Medicinâ.—Robertus M'Morran; Horatius Scott.

INSURING INFANTS' LIVES.—The disclosures which have from time to time been made respecting the suspicious deaths of infants whose lives have been insured, have elicited the following social science question in the columns of the *Public Health*, a paper devoted to social sanitary and medical legal matters :—"Considerating the high rate of mortality amongst infants which are entered upon the books of clubs, under the pretext of 'insuring their lives,' would it not be more accurate to describe the practice as 'insuring their deaths?'"

LIST of Entries in the Register of the Branch Medical Council (Ireland) for the month of February, 1868:—

Robert Locke Evans, 14, Kenilworth-square, Rathmines, county Dublin, Lic. 1867, and Lic. in Midwifery 1867, K. Q. Coll. Phys. Irel., Lic. R. Coll. Surg. Irel. 1867; Charles Boromes Jennings, Ennis, county Clare, Lic. R. Coll. Surg. Irel. 1867, Lic. K. Q. Coll. Phys. Irel. 1868; George Adams, 68, Grafton-street, Dublin, Lic. Apoth. Hall. Dubl. 1824; John Henry Penberty, Inverary Villa, Sydenham, Belfast, M.D. Qu. Univ. Irel. 1867, Lic. R. Coll. Surg. Edin. 1867; Matthew Henry Molloy, Dromore, county Tyrone, Memb. R. Coll. Surg. Engl. 1867, Lic. 1867, and Lic. Midwify. 1867, K. Q. Coll. Phys. Irel.; Michael Upington Greany, Mallow, county Cork, M.D. Qu. Univ. Irel. 1867, Lic. R. Coll. Surg. Edin. 1867; John Walton Browne, 14, Howard-street, Belfast, M.D. Qu. Univ. Irel. 1867, Memb. R. Coll. Surg. Engl. 1867, Lic. Midwify. R. Coll. Surg. Engl. 1867; William Belcher, Bandon, county Cork, Lic. R. Coll. Phys. Edin. 1867, Lic. Fac. Phys. Surg. Glasg. 1867, Lic. Apoth. Hall, Dubl. 1867; William Knox, Newtownstewart, county Tyrone, Lic. R. Coll. Phys. Edin. 1867, Lic. R. Coll. Surg. Edin. 1867; Benjamin Swift, Deputy Inspector-General of Hospitals, 61, Bushfield-avenue, county Dublin, Memb. R. Coll. Surg. Engl. 1839, M.D. Univ. Glasg. 1840; Joseph Henry Kenny, 21, James's-street, Dublin, Lic. R. Coll. Phys. Edin. 1867, Lic. R. Coll. Surg. Edin. 1867, Lic. Apoth. Hall, Dublin, 1867.

NOTICES TO CORRESPONDENTS.

Dr. Drysdale "On some points in Dr. R. MacDonnell's Lectures on Syphilis" received, and will appear as early as possible.

Several Hospital Reports, already in type, will appear immediately, including—The London, Guy's, St. Mary's, St. Bartholomew's, St. George's, &c., &c. Those gentlemen who have favoured us with the reports will, in each case, see proofs.

Several original communications are again unavoidably postponed, they will be inserted at an early date. Authors are requested to give us a little longer indulgence.

Communications received from—Rev. Dr. Kirwan, Honiton (enclosure); Weeden Cooke, Esq., (enclosure); Dr. Diplock, London; Ross Hastings, Esq., Shields; J. Lafarelle, Esq., Coleshill (enclosure); Dr. Cocker, Bank Hey; Dr. Goodwin Simms, London (enclosure); W. Rickman, Esq., London, (enclosure); W. Barker, Esq., London; the Treasurer Middlesex Hospital (enclosure); Dr. Macnaughton, Wigton, (enclosure); Dr. Herepath, Bristol (enclosure); R. Latten, Esq., St. Osyth (enclosure); H. B. Ingram, Esq., London (enclosure); Dr. J. Birchnall, Macclesfield (enclosure); Dr. J. Brown, Dundalk; Mr. Squire, London (enclosure); Mrs. Baines, London (enclosure); Mr. Hitchings, Oxford (enclosure); Mr. C. Horatio Smith, Brompton (enclosure); Lumley Earle, Esq., Birmingham (enclosure); Dr. Charles Drysdale, London (enclosure); the Director-General, Army Medical Department (enclosure); Dr. Eastlake, London; H. L. Pompet, Esq., Hadfield (enclosure); Dr. Carter, Chudleigh; C. T. Dalley, Esq., Markfield; Dr. Cresswell, Lewisham; Dr. Ogle, London; Dr. Covey, Alresford; F. Davies, Esq., Llanbyther; Professor Humphry, Cambridge; J. Craigie, Esq., Birkenhead; Dr. Jones, London; Dr. Aspray, London; Dr. Clark, Staines; Dr. Bernardet, Paris; T. Holmes, Esq., London; Professor Frankland, London; Henry Cribb, Esq., Bishops Stortford; J. Winter Jones, Esq., London (enclosure) Mr. Day, Stafford; Dr. Thorne, London; Dr. Middleton, London; Professor Letheby, London: Dr. Broadbent; London; Dr. Johnstone, London; Dr. Harley, London; T. B. Curling, Esq., London; Mr. Hutchins, &c.

BOOKS, PAMPHLETS, &c., RECEIVED.

Researches in Obstetrics. By J. M. Duncan, M.D. Edinburgh: A. & C. Black.

Principles of Chemistry. By Mons. A. Naquet. Translated by W. Cortis. London: Henry Renshaw.

Calendar of the University of London for 1868.

La Médicine Contemporaine.

The Twentieth Annual Report of the Manchester Medico-Ethical Association.

Hints to Certifying Surgeons under the Factory Acts. By George Graves, M.R.C.S. London: Knight and Co., Fleet-street.

The Monthly Homœopathic Review.

Guinea Worm or Dracunculus. By J. A. B. Horton, M.D. London: John Churchill and Sons.

Pathological Anatomy of the Female Sexual Organs. By Julius M. Klob, M.D. New York: Moorhead, Simpson, and Co.

The New York Medical Journal.

Clinical Cases of Moral Imbecility and Insanity. By Stanley L. Haynes, M.D.

The American Journal of the Medical Sciences.

The Philadelphia Surgical Reporter. The Army Medical Examination Papers, Netley. The Essex Standard. Greenwich Chronicle. Hastings News. Liverpool Mercury. Manchester Guardian, &c., &c.

Advertisements.

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SURGICAL SOCIETY OF IRELAND.

THE Next Meeting of the Society for the present Session will be held in the Albert Hall, Royal College of Surgeons, on FRIDAY EVENING, the 13th inst.

Chair to be taken at half-past Eight o'Clock precisely.

By Order,

CHAS. BENSON, } Hon.
B. WILLS RICHARDSON, } Secs.

COUNTY AND CITY OF CORK MEDICAL PROTECTIVE ASSOCIATION.

THE ANNUAL MEETING will be held at the Royal Cork Institution, on TUESDAY, the 10th of March next, when the Chair will be taken at Four o'Clock P.M. The members and friends will dine at Seven o'Clock of same evening—Meeting and Dinner being open to the entire Profession.

Signed by Order,

CHARLES ARMSTRONG, M.D., Hon. Sec.

February 17, 1868.

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W. J. VIAN, Secretary.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 11, 1868.

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Dr. LETHEBY'S SECOND LECTURE ON FOOD.

COMPARATIVE DIGESTIBILITY OF FOODS—FUNCTIONS OF DIFFERENT FOODS.

(Continued from page 199.)

As to the special functions of the several saline constituents of food, little can be said; but it is a remarkable fact that the *alkaline or basic phosphate of soda* is invariably found in the blood, while *acid phosphate of potash* is the chief constituent of the juice of flesh. Most likely the former is concerned in preserving the liquid colloidal condition of albumen and fibrin, and so keeping them from being lost by secretion, while the latter is engaged in an opposite duty. The alkalinity of the blood also helps in the oxydation of organic matters; and as the basic phosphate of soda is endowed, like an alkaline carbonate, with the power of absorbing carbonic acid, it is the chief agent whereby this compound is removed from the system. This is a remarkable property, and is one of the chief uses of basic phosphate of soda in the blood. In point of fact, when it is not there in sufficient quantity to perform this function it is replaced by an alkaline carbonate. We find this to be so in the blood of herbivorous animals, where the proportions of the two salts are the reverse of what they are in man, and carnivora. Some notion may be formed of the relative importance of the saline matters of the blood by reference to this diagram from Liebig.

PERCENTAGE COMPOSITION OF THE MINERAL MATTERS OF BLOOD.

	Man.	Pig.	Dog.	Fowl.	Sheep.	Ox.
Phosphoric Acid	31·79	36·50	36·82	47·26	14·80	14·04
Alkalies	65·66	49·80	55·24	48·41	55·79	60·00
Alkaline Earths	3·33	3·80	2·07	2·22	4·87	3·64
Mineral Acids and Oxide of Iron	9·22	9·90	5·87	2·11	24·54	22·32
	100·00	100·00	100·00	100·00	100·00	100·00

And in those cases where the phosphoric acid is deficient, it is replaced by carbonic acid. In man, for example, the quantity of combined carbonic acid in the ashes of the blood, is only 3·78 per cent., whereas in the calf it is 9·85, and in the sheep 19·47 per cent., so that in all cases the alkalinity of the blood remains the same.

The *salts of potash* in the juice of flesh have, no doubt, an equally important duty to perform, although of an opposite character; for while the alkaline phosphate of soda in the blood prevents the transudation of nutrient matter, the acid phosphate of potash in the muscular fluid promotes it; and thus it is concerned in nutrition and in the solution of worn-out tissues.

Earthy phosphates, especially *phosphate of lime*, are, perhaps, the agents for the consolidation of tissue; for not only are they present in the hard structures of the body, as the bones and teeth, but they also enter into the composition of flesh.

And not less important in the morphological functions of the animal body is the presence of *common salt*. It is a large constituent of every one of the secretions, and forms about half the total weight of the saline matters of the blood. Unlike the phosphates, however, it does not enter into the composition of tissue, but seems to be only a medium of absorption and secretion, and so necessary is it for this purpose, that it is not possible to alter, to any large extent, its proportion in the blood. If we drink water containing but little common salt in solution, it does not permanently dilute the blood, but passes off immediately by the kidneys; and if we try to increase the amount in the blood by drinking solutions of salt, as sea water, it refuses to be absorbed. This normal proportion of it in the blood is evidently a physiological necessity, which the conditions for diffusion imperatively demand. It is a curious fact, also, that common salt has the faculty of forming crystallizable compounds with most of the unorganised and effete constituents of the body. May it not, therefore, be an important agent of diffusion, and be thus concerned in the phenomena of absorption and secretion; for as colloidal matters—albumen and fibrin—cannot pass through the walls of the intestines, or the blood-vessels, it may well be that through the agency of common salt and the free acid of the gastric and muscular juices, they temporarily assume a crystalloidal condition, and are thus absorbed or secreted.

The constant presence of common salt in the secretions, and the necessity for it in due proportion in the blood, indicate the importance of a proper supply of it with the food. We perceive this in the instinct of animals, and in our own craving for it when it does not exist in sufficient

quantity in the food. Animals, in fact, will travel long distances, and brave the greatest dangers, to obtain it. Men will barter gold for it; indeed, among the Gallas, and on the coast of Sierra Leona, brothers will sell their sisters, husbands their wives, and parents their children, for salt. In the district of Accra, on the gold coast of Africa, a handful of salt is the most valuable thing upon earth after gold, and will purchase a slave or two. Mungo Park tells us that, with the Mandingoes and Bambaras, the use of salt is such a luxury, that to say of a man "he flavours his food with salt," is to imply that he is rich; and children will suck a piece of rock salt, as if it were sugar.

The experiments of Boussingault have shown that, although salt mixed with the fodder of animals, does not much affect the quantity of flesh, fat, or milk obtained from them, yet it seriously affects their appearance and general condition; for animals deprived of salt, other than that contained naturally in the food, soon get heavy and dull in their temperament, and have a rough and staring coat. Reulin states that animals which do not find it in their food or drink, become less prolific, and the breed rapidly diminishes in number. This is confirmed by Dr. Le Saine, who says, in his prize-essay on salt, that it increases the fertility of the male, and the fœcundity of the female, and it doubles the power of nourishing the fœtus. During the period of suckling, also, salt given to the mother renders the milk more abundant and more nutritious. It likewise accelerates growth, and gives a finer condition to the skin; and the flesh of animals fed with it is better flavoured, and more easily digested than that of animals which do not partake of it. In barbarous times the most horrible of punishments, entailing certain death, was the feeding of culprits on food without salt; and in the experiments of the French academicians, flesh deprived of its saline constituents by being washed with water, lost its nutritive power, and animals fed on it soon died of starvation. Even after a few days with such a diet, the instincts of the animals told them it was worthless as food; indeed, for all purposes of nutrition, it was, as Liebig says, no better than the eating of stones, and the utmost torments of hunger were hardly sufficient to induce them to continue the diet. There was plenty of nitrogenous matter in the food, but there was no medium for its solution and absorption, and hence it was useless.

The *oxides of iron*, and their homologues, the *oxides of manganese*, are largely concerned in the processes of sanguification and oxydation. They enter into the composition of the globules of the blood—manganese being the chief mineral constituent of the corpuscles of white-blooded animals, and iron of red. In fact the colouring matter of the blood discs (cruorin), as well as that of the muscles (myochrome), is a compound of iron and albumen (globulin), which has a remarkable property of absorbing oxygen when exposed to the air, and of giving it out again in the presence of reducing agents. In the one case it acquires an arterial tint, and in the other a venous; and the spectrum informs us that these two conditions of it are easily assumed—one by the presence of atmospheric oxygen, and the other by decaying organic matter. It is hardly to be doubted that these are the conditions of it in blood—the bright red oxydised cruorin being the form of it in arterial blood, and the dark reduced variety of it in venous. The functions, therefore, of both cruorin and myochrome are entirely of a respiratory nature; for, in the former case, it is the medium whereby oxygen is absorbed from the air in the lungs, and is carried with the blood discs throughout the body, and in the latter it may be the agent of intestinal oxydation.

Lastly, there is a mineral constituent of our food, *silica*, which enters into the composition of all the tegumentary appendages. Its presence is not of so much importance to us as to the lower animals, whose warmth is retained by a natural covering of hair or wool or feathers. In the case of birds, indeed, the quantity of silica in the feathers is very considerable, and Gorup-Besanez has described its physiological relations.

As to the proportions of mineral substances required in the food it is difficult to speak. Dr. Edward Smith says that an adult man requires daily from 32 to 79 grains of phosphoric acid; from 51 to 175 grains of chlorine (equal to from 85 to 291 grains of common salt); from 27 to 107 grains of potash; from 80 to 171 of soda; from 2·3 to 6·3 of lime; and from 2·5 to 3 of magnesia. According to Mr. Lawes, a very small portion of these salts is retained in the system; for in fattening pigs he found that of every 11 lbs. of mineral matter contained in the food only twelve ounces were stored up in the body, and this was chiefly the earthy phosphates, all the rest being either unabsorbed, or else used in the work of absorption, assimilation, and secretion. In most cases, therefore, there is sufficient saline matter, excepting common salt, in all ordinary food; but for all this, the presence of it in the water we drink is not an unimportant question. Four-fifths of the earth's surface are composed of calcareous strata, which yield water that is more or less rich in carbonate and sulphate of lime; and it may well be that this is a wise provision for the supply of these salts to the animal system. As Mr. Johnston has truly observed in his "Chemistry of Common Life," "The bright sparkling hard waters which gush out in frequent springs from our chalk and other lime-stone rocks, are relished to drink, not merely because they are grateful to the eye, but because there is something exhilarating in the excess of carbonic acid they contain and give off as they pass through the warm mouth and throat; and because the lime they hold in solution removes acid matters from the stomach, and thus acts as a grateful medicine to the system. To abandon the use of such a water, and to drink daily in its stead one entirely free from mineral matter, so far from improving the health, may injure it;" in fact, the water of a country may determine the diet of its inhabitants. The soft waters of the lakes of Scotland, for example, may have had something to do with the choice of brown meal; and but for the calcareous waters of Ireland the potatoe could not have become a national food.

And now, before I leave this part of the subject, it is right that I should say a few words respecting the functions of certain beverages (as tea, coffee, and fermented liquors) which have been more or less in use in all ages, as if from an untaught physiological instinct. Vegetable infusions, containing the same active principles—namely, astringent matter, volatile oil, and a crystallizable body rich in nitrogen have been resorted to for some undefined purpose by the natives of every climate; indeed, to use the words of Mr. Johnston, "the practice has prevailed equally in tropical and in arctic regions. In Central America, the Indian of native blood, and the Creole of mixed European race, indulge alike in their ancient chocolate. In Southern America the tea of Paraguay is an almost universal beverage. The native North American tribes have their Apallachian tea, their Oswega tea, their Labrador tea, and many others. From Florida to Georgia in the United States, and over all the West India Islands, the naturalised European races sip their favourite coffee; while, over the Northern States of the Union, and in the British provinces, the tea of China is in daily and constant use.

"All Europe, too, has chosen its prevailing beverage; Spain and Italy delight in chocolate; France, and Germany, and Sweden, and Turkey, in coffee; Russia, Holland, and England, in tea—whilst poor Ireland makes its warm drink of the husks of the cocoa, the refuse of the chocolate-mills of Italy and Spain.

"All Asia feels the same want, and in different ways has long gratified it. Coffee, indigenous in Arabia or the adjoining countries, has followed the banner of the Prophet, wherever in Asia or Africa his false faith has triumphed. Tea, a native of China, has spread spontaneously over the hill country of the Himalayas, the table lands of Tartary and Thibet, and the plains of Siberia; has climbed the Altais, overspread all Russia, and is equally despotic in Moscow as in St. Petersburg. In Sumatra, the coffee leaf yields the favourite tea of the dark-skinned population; while Central Africa boasts of the Abyssinian chaat

as the indigenous warm drink of its Ethiopian people. Everywhere, in fact, unintoxicating and non-narcotic beverages are in general use among tribes of every colour, beneath every sun, and in every condition of life. The custom, therefore, must meet some universal want of our nature, some physiological function which science has not yet explained; and, considering that these beverages contain essentially the same chemical compounds, it is remarkable that they should have been selected from the whole range of the vegetable kingdom." As Mr. Johnston truly observes, "What constitutional cravings common to us all have prompted to such singularly uniform results! Through how vast an amount of unrecorded individual experiences must these results have been arrived at!"

The principle constituents of these vegetable substances are:—

1st. A *volatile oil* on which their aroma depends, and which rarely amounts to one part in 150. 2nd. An *astringent acid*, of the nature of *tannic acid* in tea, and called *caffeic acid* in coffee, which give them their bitter styptic taste: it amounts to from 13 to 18 per cent. in tea, and to about 5 per cent. in coffee; and 3rd. A crystallized nitrogenous substance of an alkaline nature called *Theine* or *Caffeine*, and *Theobromine*. The average amounts of this alkaloid in different vegetable substances, according to Dr. Stenhouse, is here recorded:—

	Theine or Caffeine per cent.
Guarana or Brazilian cocoa from *Guarana officinalis*	5·07
Good black tea	2·13
Black tea from Kemaon, E. I.	1·97
Dried coffee leaves	1·26
Maté or Paraguay tea from *Ilex Paraguayensis* ...	1·20
Various samples of coffee-beans from 0·8 to ...	1·00

The physiological properties of this substance, and of its homologue, theobromine, are not clearly discoverable. Mulder states that they are not the agents concerned in the peculiar action of tea and coffee. Liebig, however, points to the fact that with the addition of oxygen and the elements of water, they can yield taurine, which is the nitrogenised constituent of bile, and he asks whether they may not be concerned in the production of that secretion. Theine, he also states, is related to kreatinine—that remarkable compound, produced in the vital process, and occurring in the muscular system of animals; and to glycocol, which we may suppose to exist in gelatine coupled with another compound. In fact, according to him, there are no drinks which in their complexity and in the nature of certain constituents, have more resemblance to soup than tea or coffee; and it is very probable, he says, that the use of them as a part of food depends on the exciting and vivifying action which they have in common with soup. Reasoning in this way it may be said that theine or caffeine, and theobromine are closely related in their composition to nervous tissue, and that therefore they are suited for the repair and renovation of the exhausted brain. Experiments made by Lehmann in 1854, with infusion of roasted coffee, and with caffeine, went to show that their chief influence on the human body was to retard the waste of tissues; that when, for example, an infusion of three-quarters of an ounce of roasted coffee was taken daily for a fortnight, the amount of urea and phosphoric acid excreted by the kidneys was less by one-third than when the same food was taken without the coffee. The empyreumatic oil was found to exert a stimulating action on the nervous system, and when taken in excess caused excitement and wakefulness. It also operated on the skin by producing a gentle perspiration, and it removed the sensation of hunger. The conclusion from these experiments was, that both tea and coffee exhilarate the nervous system, and by lessening waste enable the food to go further in its nutritive action; that with a given quantity of food, more work could be performed when these beverages were taken than otherwise; and that in old infirm persons, where the desire for tea is so strong, the waste and decay of the system was lessened. It operates, in fact, as a sort of lubricant of the animal system, and by oiling the machinery, enables it to work easier and longer.

The more recent experiments of Dr. Edward Smith are not exactly to the same purpose; for, in his opinion, tea promotes rather than checks the chemico-vital functions of the body, for directly after it is taken, the quantity of carbonic acid emitted from the lungs, and the quantity of air inspired are increased; and there is greater depth and freedom of respiration. In this way, he thinks, it promotes the transformation of starchy and fatty food; besides which, it increases the action of the skin, and by inducing perspiration, lessens the heat of the body. Coffee he says, has an opposite effect, for it lessens the action of the skin, and promotes that of the bowels; and its influence on the respiratory processes is somewhat less than that of tea.

It is manifest from all this, that we have yet to learn what are the special actions of these beverages; and why it is that they have been used in all times, and in all countries, as a means of supplying some natural want which science is unable to discover—that everywhere, the poor and the needy, the aged and the infirm, will make a sacrifice of even nutritious food for some such beverage as tea and coffee—that not less than 500 millions of the human race should make use of an infusion of tea; that more than a 100 millions should drink coffee; about 50 millions, cocoa; and not less than 10 millions of the inhabitants of Peru, Paraguay, and the Brazils, should use an infusion of maté, or guarana. In this country alone, there is over 100 millions of pounds of tea consumed annually, and, perhaps, about half as much of coffee. All this looks like the influence of some deep-seated necessity, which our philosophy is unable to fathom.

(To be continued.)

Original Communications.

ON THE TREATMENT OF DISEASES OF THE SKIN.

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CHAPTER I.—PAPULÆ.

(Continued from page 112.)

C. Prurigo—Definition.—An eruption of small, pale papules, with a dry, greyish, or yellowish state of the skin, accompanied by intense itching, stinging and burning; wasting of the body; skin often marked by long abraded lines. Divisions: P. mitis (the lichen pruriginosus of Wilson), in which the papules are soft, smooth, solitary, and dispersed; generally scattered on front part of fore-arms, belly and thighs; often nearly of same colour as the skin; seen mostly in middle-aged persons, or the young. P. senilis or formicans, where the papules are fewer and larger, and accompanied with the most violent itching sensation of being stabbed with a needle, crawling and tingling; generally preceded or accompanied by considerable disturbance of the health, and a dirty-looking state of the skin, which is almost always marked by scratching.

In all forms of this justly-dreaded affection, the remedies which seem to have succeeded best resolve themselves pretty well into six classes.

1. *An alkali.*—Soda, for instance, seems to have always been a favourite ingredient in the prescriptions of the most successful practitioners. I do not attribute much importance to the form in which it is given; perhaps the carbonate, or a mixture of carbonate and sulphite, answers best. If there be much indigestion or acidity, ten grains may be given two or three times a-day, just after meals, either in an ounce of bitter infusion, with which a little compound tincture of cinnamon or spirit of nutmeg is combined, or it may be administered in conjunction with

aromatic confection and dilute hydrocyanic acid.[1] These remedies should be continued till indigestion is removed; should no indigestion be present they may be given up at the end of ten days or a fortnight.

2. A remedy is required which will act on the skin. Sulphur in some form or other is perhaps the mildest and most certain. Antimony, however, in such a preparation or dose as will not nauseate or depress, may also be prescribed with benefit, and I see no objection to combining these remedies with a little nitrate of potass. When the skin is very dry and harsh, as it almost always is, a powder containing these ingredients may be given on going to bed, in a little gruel or warm whey. Like the previously mentioned remedies, these need not be continued more than about a fortnight.

3. The use of either of these two sets of remedies should be accompanied by a course of medicine which will act gently on the liver and bowels, as, for instance, the occasional use of small doses of iodide of potassium, with rhubarb, either in the form of infusion or pill. A little mercury may be given in the shape of blue pill, combined with soap, henbane, and jalap or colocynth; or as grey powder, with nitrate of potass. Mr. Startin places mercury under interdict, though I have never seen it do the least harm.

4. But the great internal remedy in prurigo is arsenic, and in all very severe or long standing cases, and in those which do not seem to be benefited by the preceding treatment, I would advise that it should be immediately begun with; and the other remedies used only as auxiliaries, or in the place of the arsenic when it is necessary to interdict it. It may be prescribed in full doses, and when this is done, I am disposed to share Mr. Hunt's opinion that prurigo is not such an intractable disease if properly treated, although I am aware that the statement may be looked upon as a modern heresy, and that Mr. Wilson[2] considers it a stubborn and even a grave complaint in elderly persons. Under the old plan of treatment it seems to have resisted every attempt to subdue its malignity, and, perhaps, there were more suicides from prurigo than from all other diseases of the skin put together. Mr. Hunt says—"Of the entire recovery of a patient thus affected, or even of considerable alleviation of suffering, not one single gleam of hope can be gathered from any author who has written on the subject. And yet there is no truth in the whole circle of medical science more vividly impressed on my own mind, than that, under proper management, arsenic is an effectual remedy for this disease." Mr. Hunt bleeds to faintness in refractory cases before giving the arsenic; in one case he took about seventy ounces of blood from the arm, and probably fifteen additional ounces by leeches, and certainly, according to his statement, the success seems to have quite justified the means. Lisfranc used also to bleed in cases where the itching was connected with difficult menstruation, and the practice is said to have been very beneficial.

5. Certain remedies which seem to stimulate nutrition in some as yet unknown way. Of these two are well worth a trial—strychnia and cod-liver oil. The strychnia may be given in doses of a sixtieth or a sixty-fourth part of a grain every three or four hours till a decided effect is produced upon the disease, or till nervous symptoms show themselves, when it may be left off. It sometimes acts like a specific upon the pruritus, and when this symptom is once thoroughly quelled, we shall seldom, if ever, have much difficulty in dealing with the remaining symptoms. Nux Vomica was a favourite remedy with Neligan, but I believe we are indebted to Dr. Burgess for this mode of exhibiting its active principle. It should not be taken along with any other remedy, whereas the cod-liver oil may be given almost as an article of diet for a long time, and in moderate doses, quite irrespective of any other medicine the patient may be taking. I confess my entire ignorance as to how cod-liver oil and strychnia may act, and it may, perhaps, save some trouble if I say, once for all, that I am not prepared to offer any explanation of the action of medicines, for the simple reason that in respect to most of them nothing whatever is known for certain, and as to cloudy conjectures and cabalistic forms of speech, I leave them to those who like them. I am content to admire at a distance the person capable of solving such questions as causes and modes of action,[1] as I quite despair of my own ability to do so.

6. A free use of hot baths, especially the Turkish bath. I prefer the latter when it can be used, but when the patient is very nervous, suffering, or supposed to suffer, from disease of the heart, or subject to fainting; where he resides at a long distance from any establishment or baths of this kind, or where expense is an object, the hot bath is our only alternative, and fortunately it is a very good substitute. The water should be at quite ninety-eight or a hundred degrees of Fahrenheit. The patient, so soon as he enters the bath, should scrub himself all over with the flesh brush, lather the affected parts with either the soft soap of the London Pharmacopœia or Pears's transparent soap, and then let himself down into the hot water, in which he ought not to remain more than three or four minutes. Having dried himself thoroughly, he should apply any ointment he may be using and dress directly.

But the Turkish bath is the thing; it scarcely ever fails to do good, and is, perhaps, more peculiarly suited for prurigo than for any other disease of the skin. There are many persons in the habit of sponging all over daily, and who, therefore, have quite made up their minds that they require no other kind of purification. They cannot too soon be undeceived as to the efficacy of water used in this way; it will no more free the skin from soot, dust, dead scarf skin, and secretion, than rubbing a horse gently down with a soft towel will make his coat glossy. To rid the surface thoroughly of these impurities, two things are necessary: free perspiration must be induced, and the skin must be well rubbed and kneaded. Trainers are well aware of this, and when preparing a man for a fight, make him perspire freely, and then rub him down with a hard towel. The vigorous system of cleansing adopted in a Turkish bath is more like that used in training than any other, and will soon open the eyes of those who put their faith in cold sponging only, by bringing away an unexpected quantity of dirty skin. As there is no danger to be apprehended from the use of the bath, so long as the simple precaution is adopted of not staying in too long at first, and always taking the bath on an empty stomach, it can scarcely be overdone. I have known one taken three or four days together without any harm arising from it, and should not anticipate any.

Some most extraordinary objections have been made to it. Mr. Hunt, for instance, expatiates with grim sarcasm on the portentous aspect of things on entering a Turkish bath—the air so hot as to make one fancy that it cannot be breathed without setting the lungs on fire, the kneading and trampling on the patient, and the drowning with a deluge of cold water, but he admits that it cures fanciful people of their whims in superlative style. Then, one of the whims it will cure them of is fancying there can any harm come from using the bath.

Whichever form of bath be adopted, I would strongly insist upon the necessity for taking it regularly and often enough, and not yielding to any nonsense about baths being lowering, weakening, &c. I dwell upon the subject because the advantage of hot bathing in prurigo generally so soon becomes manifest. If nothing else be gained, free perspiration is promoted, and though this is no panacea, yet it is attended with relief. Prurigo often breaks out in persons who have nothing to reproach themselves with in regard to cleanliness. Mr. Startin, indeed, says,[2] "that the neuralgic itching which some writers consider as a form or variety of prurigo is, perhaps, more frequently met with in the respectable walks of life than any other cuta-

1 R. sodæ carb. ʒij. Acid Sulph. dil. ʒi. Con. aromat ʒiss. Acidi Hydrocyan. dil. ph. Lond. m. xx. aq. Menth. pip. ad. ʒviij. Coch amp. duo. bis terve quotidie sumend.

2 Diseases of the Skin, Sixth Edition, p. 336.

1 Felix qui potuit rerum cognoscere causas.

2 *Medical Times*, vol. xiv., p. 193.

neous affection." Such persons often seem surprised at being told to make free use of hot baths, but they forget that they do not take sufficient exercise to keep the skin in a healthy state, and that means which would do very well with men riding twenty miles a-day, or working hard at training, are quite inefficient when exercise is reduced to a gentle stroll. Elderly persons in good circumstances, and people who have retired from business, often seem to think it is hardly respectable to go beyond a steady walk, but prurigo will not yield to such gentle means, and till regular active exercise has become a settled habit, the action of the skin must be encouraged. In all cases I think no woollen ought to be worn next the skin.

Mr. Wilson gives generous diet and tonics in this disease, and considers arsenic, properly given and watched, as a specific. Frictions, baths, carbolic acid soap, and juniper-tar soap, are his chief local remedies, but he looks upon the prognosis as doubtful, on account of the exhaustion and suffering which accompany the complaint.

Mr. Startin's treatment of prurigo is that of lichen; he relies chiefly on mineral acids, chalybeates, opium, and ammonia, and has never found benefit from mercury or arsenic; on the contrary, they rather do harm. In a very severe case of prurigo formicans, recorded by this gentleman, twenty drops of dilute sulphuric acid and ten of Batley's sedative three times a-day, followed by tincture of muriate of iron, in infusion of quassia, and an opiate at bedtime, proved perfectly successful. These means were, however, seconded by the use of an ointment of white precipitate of mercury and creosote, ten grains of the salt, and a few drops of the fluid to an ounce, and after this a weak solution of bichloride of mercury in creosote water, used warm; later on, the ointment was entirely discontinued, and bisulphuret of mercury was added to the lotion. A strict diet, consisting of milk, bread and boiled meat was observed. Mr. Startin finds hot air baths and cinnabar fumigations of great service. Dr. Neligan[1] used to prescribe iron in infusion of hops, with the juice of conium in pretty large doses. He found in the prurigo of old people great benefit from the use of this remedy along with magnesia. Some years ago, Dr. John Waterfield communicated to the *Lancet* and *Medical Gazette* a paper on the value of tar and charcoal pills, and he now tells me that he has treated several cases of prurigo very successfully with this remedy. Dr. Hillier[2] says that in some chronic cases diuretics, "such as the sweet spirits of nitre, decoction of broom, with the compound tincture of juniper and saltpetre," are of benefit. Dr. Purdon communicated to the *Journal of Cutaneous Medicine*[3] three cases in which the bromide of ammonium in doses of from ten to twenty grains effected a very rapid cure.

Hebra, who only admits prurigo mitis and formicans, views the malady in its gloomiest light; the picture is filled in with the most sombre tints that utter despair of being able to do any good can lend. The patient is doomed *tenero de ungue*. The relentless malady begins with childhood; even in his schoolboy days the martyr to it is an outcast; playfellows and masters alike shun and worry the victim of unappeasible itching. As he grows up, he is expelled from society or becomes a recluse; if he be a working man, he must not sleep in the same room with a fellow workman. He dare not try to establish a home, nor should, he already possess one, can he bring a wife to it. With advancing life the disease acquires more hold on the system, and only leaves him in the grave. Till that hour comes, he knows no hope and no peace. The complaint is not difficult to cure, for the simple reason, that it is incurable,[4] and all that the physician can do, is to make the patient's condition a little more tolerable. Hebra seems never to have given arsenic a fair trial, and it may be safely predicted that so long as he does not, he will find the complaint as refractory as he describes it to be. He utterly abjures bleeding, purgatives, and starvation, possibly with reason, but in point of fact I know nothing of the disease as spoken of by him, and never read of it in the pages of any other writer. Possibly in this severe, hopeless form it is as peculiar to Austria as pellagra to Italy.

In some cases, particularly when prurigo attacks the pudendum, scrotum, or anus, the itching is so intolerable that something must be done locally for it; indeed, the itching is the symbol of the malady, the one essential and tangible symptom, and the cure of it is the cure of the disease. Mr. Wilson recommends, in a general way, that the skin should be frequently rubbed with a damp sponge dipped in fine oatmeal; after this, the tincture of croton, made by steeping an ounce of bruised croton seeds for a week in four ounces of spirit, is applied, and after this has been done a few times, a lotion of bichloride of mercury in almond emulsion, fifteen or twenty grains to a pint, will often prove very efficacious. Painting the surface with iodine is useful, as is also glycerine applied with a sponge. For the affection of the pudendum, Bateman recommends a lotion made of two grains of bichloride (oxymuriate) of mercury in an ounce of lime-water. Mr. Wilson says the juniper-tar ointment is peculiarly valuable in this variety. In pruritus of these parts injections of very hot water, juniper-tar ointment, blisters to the thighs, and small bleedings, seem, from all accounts, to be the most reliable means of cure. Mr. Wilson has found an opium injection relieve the irritation after all other means had failed. Strong nitric oxide of mercury, ointment, and podophyllin in doses of one-sixth of a grain, are said to have proved of great service in prurigo of the anus. Mr. Startin, in a case related in his lectures, where the scrotum was also affected, directed mucilaginous hip-baths, daily ablutions with yolk of egg and tepid water, the application twice a day of very dilute mercurial ointment, with a few minims of creosote, strict diet, and one-sixth of a grain of bichloride of mercury in cold infusion of hops three times a-day. The case was very severe, and occurred in an old man; but a cure was effected in little more than two months. In the prurigo of old people generally, Mr. Startin's prescription for external use is a liniment of glycerine and trisnitrate of bismuth or powdered talc, rubbed in with a flesh-brush. Dr. Frazer recommends[1] for trial finely powdered camphor mixed with six or eight parts of rice or potato starch, and a small quantity of acetate or carbonate of lead. This is dusted on the skin three or four times a-day, its action being aided by calomel ointment. Latterly, Dr. Neligan confined himself almost entirely to chloroform ointment, which seems one of the best, if not the best, ever introduced. It is made by mixing half a drachm of chloroform with an ounce of cold cream. I believe this and the lotion given below[2] are two of our most valuable remedies.

Mr. Balmanno Squire considers[3] that prurigo senilis is always due to pediculi, and we may naturally expect to find that his principal reliance is upon external means. That in some persons pediculi will induce symptoms which might very easily be mistaken for prurigo is possible enough, but that they ever bring on genuine prurigo, a disease in its severer form so generally associated with some deep-seated constitutional disorder, is a very different matter. Mr. Naylor, who thinks[4] the insect cannot produce any form of this complaint, says he has known a very weak nitric acid lotion—half a drachm to eight ounces of water, or one of bismuth, a scruple to six ounces of water—prove exceedingly serviceable. He also says that when prurigo is an idiopathic affection the use of chloroform is often of great service, applied either in the form of vapour or of an ointment consisting of equal parts of chloroform and camphor liniment.

(To be continued.)

1 Practical Treatise on Diseases of the Skin, 210.
2 Handbook of Skin Diseases, 79. 3 Vol. I., p. 326.
4 "Es ist night schwer heilbare, deun dann ware es ja unter gewissen Umstande heilbare—es ist unheilbar." Handbuch dern speciellen, Pathologie and Therapie, 3en Band 3e Lieferung. S. 485.

1 Treatment of Diseases of the Skin, p. 131.

℞. Hydr. bichlor. gr. iv.
Bismuth oxyd. ʒss.
Acidi hydrocyan. dil. Ph. Lond. ʒss.
Aq. calcis ad. ʒviij. ɱ.
To be applied warm two or three times daily.

3 *Medical Times and Gazette*. 1865. Vol. 2, p. 211.
4 Treatise on Diseases of the Skin, p. 86.

CASE OF EXTRA-UTERINE PREGNANCY.

By JOHN MOREWOOD, M.R.C.S.I.

I WAS engaged in the month of March, 1867, to attend Mrs. B., the mother of three or four children, who expected her confinement early in the month of June. She occasionally sent for me during the interim, owing to frequent attacks of uterine hæmorrhage, which were sometimes very profuse, but generally yielded to the application of a sponge moistened in vinegar and water, as a plug in the vagina.

The placental murmur could be clearly and distinctly heard, and the motions of the fœtus plainly felt so far on as nearly to the end of the ninth month, when one morning she was seized with very severe spasmodic pains in the left portion of the abdominal region. She immediately sent for me, and I endeavoured to relieve her by stuping, opiates, and emollient enemas; notwithstanding, the pains continued for two or three days, and no appearance of labour, and as I could not by the stethescope discover any fœtal murmur, I concluded the child was dead.

I had very great difficulty in allaying the fears and calming the distressing apprehensions of the woman, who felt the greatest uneasiness and alarm lest she should herself die.

I administered occasional anodynes, gave her light and nourishing diet, and kept her confined to bed, while another month passed away, and as yet no labour or appearance of it.

I was becoming rather uneasy myself as to the result of the case, when one day, almost six weeks after I had found that the child was dead, the woman sent for me, and on my going to her she told me, in a great fright, that she had had a slight diarrhœa, and when on the night-chair had passed, with great agony, something like the bones of a rabbit, but which, on my examination, turned out to be a portion of the side of the thorax of a fœtus, with the ribs, clavicle, and sternum attached.

I then immediately examined per anum, and found an opening through the rectum, behind the uterus, about three or four inches from the verge of the anus, into which, by inserting the tips of my first and middle fingers, I could plainly feel the outlines of a full-sized fœtus in a state of decomposition, and from which I was enabled to remove some more ribs, with a humerus, clavicle, and a portion of a forearm, and then I had to desist, as she was both exhausted and greatly alarmed.

I continued to visit her occasionally for a month, and each time I brought away a few bones, portions of the ribs, cranium, thigh, leg, &c., generally using a lavement of warm water, which brought off decomposed pieces, and afforded very great relief.

She was very thin and pale, and had a nasty diarrhœa during the latter part of her illness. I occasionally gave her castor oil, with anodynes at night. She gradually began to improve and gain strength and flesh, the enlargement of the abdomen to decrease, and the orifice through the rectum to diminish, so that I could hardly insert even the point of one finger, neither could I remove any more portions of bones, as I feared there must still have some remained, although very little enlargement or hardness could be perceived.

In a very short time she came rapidly round, being able to walk about and attend her ordinary household duties. She went off to the sea-side for a month, and returned looking as well as ever, apparently in good health, which she has continued ever since to enjoy.

I thought this would turn out a case of placenta previa, from the constant hæmorrhages, but it was evidently one of extra-uterine pregnancy. I had never met with a case of the kind, and I mentioned it to some of my medical friends, whose experience in such matters seemed little better than my own; so, with care and patience, and using as little force as possible, and avoiding every source of irritation, now and again gently aiding by the assistance of two fingers, everything has gone on well, and the woman is now strong and healthy, and regular in her monthly periods as usual.

Hospital Report.

SURGICAL RECORDS.

By WILLIAM STOKES, Jun.,

SURGEON TO THE MEATH HOSPITAL AND RICHMOND SURGICAL HOSPITAL.

OPERATION OF CASTRATION.

THE two following cases, in both of which I recently performed the operation of castration, present features of considerable interest, whether regarded in a purely clinical or pathological point of view.

CASE I.—CHRONIC HÆMATOCELE OF SIX YEARS' DURATION: DIFFICULTY OF DIAGNOSIS: CASTRATION: DIVISION OF THE CORD BY THE ECRASEUR: ARREST OF HÆMORRHAGE BY THE THIRD METHOD OF ACUPRESSURE.

John C., æt. 67, was admitted into Meath Hospital, under my care, in the middle of last October, suffering from a large scrotal tumour occupying the left side. The history the patient gave of his case was as follows:—About six years ago he observed a considerable enlargement of the left testicle, which came on without any appreciable cause, and up to a few days previous to his admission it was unattended with any considerable distress. One day, however, early in the month of October, while engaged in the laborious occupation of packing hay on a cart, he felt a sudden and violent pain in the tumour, and this was followed two or three days afterwards by a great increase in its size. He accordingly came up to town, and was at once admitted into hospital. The tumour was very large, oval in form, of very great weight, and firm in its consistence. It weighed very nearly four pounds, and was attended with very great pain. The anterior surface of the tumour was smooth, but posteriorly there was considerable irregularity, and at the inferior portion there was a point at which we determined distinct fluctuation. At this point I made a puncture with a fine trochar, and gave exit to about half a pint of a clear sero-sanguineous fluid, not like that of an ordinary chronic hæmatocele, which is usually not transparent and of a brownish chocolate colour, but like what, perhaps, may be best compared to the juice of a ripe cherry. This operation was not attended with any very great diminution in the size of the tumour, not either after a second similar operation, which was performed some three or four days after the first. From this circumstance, therefore, from the great weight, size, and hardness of the tumour, from the marked enlargement of the veins which ramified over its surface, both anteriorly and posteriorly, from its form and irregularity, from the pain in the tumour, and great thickness in the cord, I was led to modify the opinion I originally held, which was that it was a simple hæmatocele, and to suspect at all events that the case was complicated with disease in the testicle. The diagnosis in these cases, especially when they are very chronic, and the tunica vaginalis and its coverings have become very much thickened, is attended with great difficulty, "in some instances," as Mr. Curling observes, "it cannot be satisfactorily made out by the nicest manipulation of the most experienced hands." It was, however, obvious, that whatever might be the precise nature of the tumour, there was but one thing to do in order to relieve the patient permanently from the distress occasioned by it, and that was its entire removal, and the operation was accordingly performed on the 6th of last November. The concluding steps of the operation, the division namely of the cord, and the securing of its vessels, were accomplished satisfactorily; the former by Weiss' new ecraseur, an instrument of which I cannot speak too highly, and the latter by the third mode of acupressure, which succeeded admirably in completely arresting the hæmorrhage. In truth, in no case in which I have practised acupressure, have its good effects been more apparent than in the one at present under consideration. The morning after the operation the needles were removed, and there was no trace whatever of any secondary hæmor-

rhage. A section of the tumour showed that the opinion originally formed was the correct one. The tunica vaginalis was found to be much enlarged, in some places being five or six lines in thickness. It was of a yellowish white colour, and extremely firm and tough. The testicle, which was much atrophied from the long-continued pressure to which it had been subjected, but not presenting any other morbid appearance, was found, as usual, at the posterior portion of the tumour. The coagula, which resembled much the contents of an old aneurismal sac, being connected into a solid fibrinous substance of a yellowish fawn colour, constituted the principal contents of the tumour. Numerous trabeculæ, formed of coagulable lymph, also traversed the interior of the cyst, giving it the characteristic honey-combed appearance, so often met with in chronic hæmatoceles. The remaining portions of the thickened sac of the tunica vaginalis was occupied by an adventitious gelatinous deposit, which was quite transparent and of a dark-red colour, and this occupied, for the most part, the numerous partitions formed by the trabeculæ or bands of coagulable lymph.

During the convalescence of the patient, nothing untoward occurred. The wound healed with greater rapidity than I had at all anticipated, and the patient was able to leave hospital within a fortnight after the operation in good health and spirits.

The following case is also one of much interest, as it presents an example of a disease which is rarely met with, and which, though not true cancer, is eminently malignant in its character.

CASE II.—RAPIDLY GROWING SARCOMATOUS TUMOUR IN SCROTUM, ORIGINATING PROBABLY IN THE CORD : CASTRATION : DIFFICULTY OF SECURING THE VESSELS OF THE CORD OWING TO ITS RETRACTION INTO THE ABDOMEN : LIGATURE OF THE CORD "EN MASSE :" RETURN OF THE DISEASE IN ABDOMEN IN LESS THAN TWO MONTHS : PATIENT STILL UNDER OBSERVATION.

Columb. D., æt. 21, by occupation a farmer, of fair complexion, and very strongly built, was admitted into the Meath Hospital under my care on the 10th of last November, having been recommended to me by my friend Dr. Bewley, of Clara, King's Co. The history he gave of his case was as follows :—He stated that about three years ago, while riding on a very restive horse, he was thrown forwards against the pommel of the saddle. The left testicle was severely struck, and a short time afterwards it swelled, and presented all the usual signs of traumatic orchitis. Under the influence of rest, antimonials, local depletion, and other antiphlogistic measures the inflammation subsided completely, and in a short time the organ did not present any induration or increase in its natural size whatever. From this time up to three months previous to his admission into hospital, he remained in the enjoyment of perfect health. About the middle of last August, however, he observed an increase in size of the testicle, which had three years previously been the seat of the traumatic orchitis. No cause could be assigned for the second enlargement of the gland.

In November, the tumour having reached a very great size, he was recommended to come up to town to seek for surgical advice, and he accordingly did so, and was admitted into the Meath Hospital, under my care, on the 3rd of last December. The tumour was very large, weighing over two pounds. It was globular, irregularly lobulated on the surface, free from pain, and there were two points at which there was distinct fluctuation. Into one of these I passed a fine trochar, and evacuated about two drachms of a clear, straw-coloured, honey-like fluid, which had an alkaline reaction. The lower portion of the cord appeared considerably thickened.

Looking at the history of this case, and the general external characters of the tumour, I could not avoid arriving at the conclusion that it was decidedly malignant in its nature, and that the only chance for the patient was the complete removal of the entire growth. In this view my colleagues concurred, and the operation of castration was accordingly performed on the 7th of last December. As regards the operation, nothing unusual is to be reported about it, excepting the great difficulty I experienced in arresting the hæmorrhage, owing to my being obliged to divide the cord very high up, and this rendered the application of acupressure needles a matter of great difficulty. So great was the tendency of the cord to retract into the abdomen, that three times the needles commanding the vessels slipt off the cord. Abandoning acupressure, therefore, in this case, I seized the end of the cord with a strong forceps, drew it forwards, and ligatured the entire structure *en masse*. This I was enabled to remove on the third day after the operation, and no secondary hæmorrhage followed. During the healing of the wound nothing untoward occurred. It healed with great rapidity, and within a fortnight after the operation the patient was able to return home. On making a section of the tumour, I found that the testicle was imbedded in the tumour, but did not present any morbid appearance. The disease most probably originated in the cord. Dr. Purser, my colleague in the Carmichael School, kindly examined the tumour microscopically for me, and directed my attention to a very remarkable feature connected with it—namely, the appearance of voluntary muscular fibres in the substance of the morbid growth. This is, in truth, difficult to account for. The tumour appeared to Dr. Purser to be an example of the fuso-cellular sarcoma of Virchow, analogous in many respects to the fibro-cellular tumour of Paget. The description, in truth, of the external appearances of this class of tumours, given by the last named eminent pathologist, would answer in every respect to what we found in the tumour at present under consideration, for, on making a section, we observed "opague white bands intersecting a shining succulent basis-substance of serous yellow, or greenish-yellow tint. Through this basis the bands course in circles or wavy lines, or form complete partitions ; or in the smaller lobes of the tumour they run without order, only forming white marks on the yellow ground colour, but giving no appearance of grain, or of regularly fibrous structure."—Lectures on Pathology, vol. ii., p. 107.

For some weeks after the patient's return to the country he remained free from all pain or weariness, and greatly relieved by the absence of the tumour. Towards the end of January, however, he began again to suffer much pain in the lower portion of the abdomen on the left side, and along the spine. Shortly after this he observed a tumour growing immediately above where the cord had been divided, and another higher up on the same side. He then came up to town, and put himself again under my care in the Richmond Hospital, where he is still under observation. Nothing gives him so much relief as the hypodermic injections of the acetate of morphia.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, 14TH FEBRUARY.

Mr. PORTER, Vice-President of the College, in the Chair

DR. HARGRAVE read the following paper :—

REFLECTIONS ON THE OPERATION FOR SECURING THE ARTERIA INNOMINATA AND THE SUBCLAVIAN IN THE FIRST PART OF ITS COURSE, WITH THE PROPOSAL OF A NEW OPERATION FOR EFFECTING THIS OBJECT.

Surgeons are still undecided as to the best operation to adopt for curing aneurisms of the subclavian and arteria innominata arteries. As far as my inquiries enable me to judge, and to collect the result of these operations, the following have been performed on the subclavian in the first part of its course, and all unsuccessful, ten in number : two by our late Professor Colles, the first, I believe, in an historic view, to propose and execute it; Hayden, one ; Liston, two, in one case he also tied the carotid ; Mott, one ; O'Reilly, one; Partridge, one ; Rodgers, one ; Arndt, 2 ; all fatal by hæmorrhage, except Partridge's, whose case succumbed on the fourth day from pleurisy and pericarditis. On the arteria

innominata, thirteen operations have been performed, as collected by Mons. Le Fort, published in the *New Orleans Medical Record*, translated by Dr. Dowler of that city, from Le Fort's paper. The surgeons who performed this operation are: Mott; Arndt, of St. Petersburg; Bland, of Sidney; Græfe, of Berlin; Hall, of Baltimore; Hutin, or Oran; Lizars, of Scotland; Cooper, St. Francisco, twice; Bugalsky, according to Velpeau, twice; Norman, and a surgeon mentioned by Dupuytren, but not named, 13.

Instead of ligature of the innominata, the subclavian and the carotid were tied by Cruveilher, Rossi, Khul, and Liston. To these operations must be added Smith, of New Orleans, who performed, what I consider, a triple operation, by tying the vertebral, and by G. H. Porter, of Dublin, who compressed the axillary by acupressure, and subsequently the innominata by a metallic compressor, and by Fearns and Heath, eight.

Of these thirty-one or two operations but three were successful, all dying from secondary hæmorrhage. This operation has been performed in such a manner as to permit me to classify it into the following varieties:—

1. On the subclavian as a single operation, all of which succumbed to secondary hæmorrhage.

2. Simultaneous operation on the subclavian in the first part of its course, and the carotid, by following Brasdor's proposal, as practised by Rossi, as shown by Heath.

3. Ligature of the carotid alone gives no sufficient hope for success. Mr. Butcher, in the summer of 1863, exposed the right subclavian in the first part of its course for aneurism: it was found enlarged and diseased; he then traced the vessel to its origin from the arteria innominata: its diseased condition interdicted the application of the ligature; he then tied the common carotid about three-quarters of an inch above its origin. In the operation *very little* blood was lost, the patient was doing well in every way, when suddenly, on the fourth day after the operation he became suddenly very faint, and gradually sunk eighty-eight hours after the operation. Mr. Butcher afforded me much gratification in witnessing this operation through its embarrassing steps. A full account of it is given in his very practical work on Conservative Surgery, and cogent reasons assigned for not simultaneously securing the axillary artery.

4. Simultaneous ligature of the subclavian in the third part of its course, and of the carotid above the omohyoid m., by Heath successful, succeeded also in Fearns's case after a long interval between each operation, two years.

5. Smith's operation, New Orleans, May 15th, 1866. A ligature was placed on the arteria innominata, one-quarter of an inch below the bifurcation, another ligature on the carotid, one inch above its origin from the subclavian aneurism; fourteen days after the operation excessive hæmorrhage set in, various local means were tried to arrest it, with intermittent success; finally, fifty-four days after the first operation, the vertebral artery was tied (not a very difficult operation), no return of hæmorrhage, and the patient recovered.

6. Our Vice-President, Mr. Porter's case, recently published, in which the axillary artery was compressed by acupressure on June 20th, 1867, which failed to effect a cure; the arteria innominata on July 31st was then exposed and compressed by an instrument invented by Mr. L'Estrange to compress the vessel, which was followed by profuse hæmorrhage on the 9th of August after the operation on the innominata, and on the day following, the 10th, it proved fatal. The innominata was found to have given way by ulceration and slough, just below the bifurcation of it into the carotid and right subclavian, apparently where the compressor of L'Estrange had been applied, *and on the distal side of it.*

Operation for securing the vertebral artery as practised by Smith, of New Orleans:—

"The head of the patient being thrown back and slightly turned to the left, an incision two inches in length was made along the posterior border of ster. mast. m., commencing at the point where the external jugular vein crosses this muscle and terminating a little above the clavicle, the edge of the muscle being exposed and drawn to the inner side, the prominent arterior tubercle of the sixth cervical vertebra was readily felt and taken for the guide. Immediately below this lies the vertebral artery; a layer of fascia was now divided, some loose cellular tissue with lymphatics, and the ascending cervical artery were pulled to the inner side, and a separation was made between the ant. scal. and longus colli muscles, close between their insertion into the tubercle when the artery and vein became visible, the latter was drawn to the inner side (this is important), and the needle passed round the artery from without inwards."

To render this operation doubly secure, I may mention some irregularities I have myself met with. For example, I have seen the artery enter the foramen of the fifth cervical vertebra, and in two instances it ascended along the neck, parallel to the carotid, almost equalling it in size, but *external and posterior* to its entering into the foramen of the third cervical vertebra; such irregularities would appear to me to facilitate the operation for securing the vessel.

Every candid surgeon must admit that all these operations have been performed with consummate skill, and specially the last case of this operation recorded by our Vice-President, Mr. Porter, my friend and former pupil, who so successfully surmounted great difficulties in securing the arteria innominata, and placing a *metallic* compressor upon it, thus meriting the blue ribband in operative surgery. I specify this compressor in contradistinction to the presse artere used by Crampton, and others, which was partly metallic and partly a narrow piece of tape.

From such a history of this operation, and its fatal results, giving but three successful cases, surgeons are justified, I would add, called on to consider if any other operation or modification of operation can be adopted to secure a more general success. The danger to be guarded against is the hæmorrhage at no very remote period following the operation, which should not surprise us when we consider the large vessels which permit a recurrent flow of blood to the aneurism on the distal side of the ligature, almost immediately after it has been applied either to the arteria innominata, or to the subclavian in the first part of its course, thus maintaining the disease and favouring uncontrollable and fatal bleeding. Mr. Smith's bold and decided practice has indicated from whence the bleeding will occur; it is evident from his case that the operation for the subclavian artery in the first part of its course, should consist of a double operation simultaneously performed on the subclavian, or the arteria innominata, and the common carotid; should subsequent hæmorrhage occur, then to secure the vertebral artery without loss of time.

The operation, which to me is not only feasible, but worthy of testing, is the following one—first, to expose the subclavian in the first part of its course, or the innominata, and to pass the ligature round the vessel, then to saw through the clavicle about its external fourth; my object in encircling the artery with the ligature before the section of the bone is made, is that we cannot predicate what disturbing influences in the relations of the parts will follow it; they might be considerable or nothing, we guard against any untoward result of such section, by acting as suggested as regards the ligature than tie it. By this proceeding, when the shoulder is deprived of its support by the clavicle it approaches to the thorax; the consequence of which is that the tension of the artery is relaxed, the vessel and the ligature are at rest, not disturbed by any of the motions of the shoulder, and no risk of the vessel being in any way lacerated and giving rise to hæmorrhage is obviated. By referring to the dead subject, or, in place of it, the anatomical plate representing the course of the subclavian, it will be seen what little support it receives from the surrounding tissues; in fact, it represents a tense full tube, extending from its origin, and resting more or less on the apex of the pleura costalis, till it reaches the first rib, and is not well supported by soft parts till it is escaping from beneath the clavicle into the axillary region. By adopting this plan for securing the subclavian by a single operation, it guarantees, as far as operative surgery can effect perfect quietude, and less tension to the vessel after the ligature is applied to it. It can be urged against this proposal that the injury to the clavicle is a great objection, complicating it by producing a compound fracture of that bone; it must be borne in mind that this lesion is made in the most cautious and careful manner, admitting that osseous union does not follow it, still the patient will have very great, almost perfect, use to the upper extremity in all its motions.

One word as to the kind of ligature for large arteries. From my experience of its value on the common iliac artery, no better ligature can be used than that of hemp, *from the firm way in which it remains on the artery, the complete absence of irritation, and no alteration in its strength and soundness.*

It is almost unnecessary to state that Sir Wm. Fergusson is not in favour of operation on this vessel. Liston was also unfavourable to it. Guthrie says—"It is probable, if the operation be repeated, it will ultimately be successful, although it must always be exceedingly hazardous," a prudent and practical obser-

vation. As to the proposal of sawing through the clavicle, as proposed by me in my work on Operative Surgery for Ligature of the Subclavian, when buried deep behind an elevated clavicle, Mr. Erichsen says—"The most serious objection that can be raised against this practice is the fact of the clavicle being sometimes a part of the wall of the aneurism, but supposing that the surgeon can satisfy himself that this was not the case, I cannot see any objection to this procedure, provided any great and insurmountable difficulty presented itself in getting the ligature round the vessel without it." These, *ipsissima verba*, are repeated in the last edition of his most practical work on Conservative Surgery.[1]

Of all these six operations which I have brought before the Society, whether upon the cardiac side of the aneurism as a single operation, or upon the distal side of it, complicated with operations simultaneously performed, or subsequently upon arteries communicating with the subclavian, as the carotid or vertebral, only three out of thirty-one have been successful—Heath's simultaneously performed on the distal side of the aneurism and the carotid; Fearns's case of double ligature.

Three operations have been considered as successful, Fearns's, Smith's, and Heath's; in reality but two were immediately successful, Smith and Heath, while Fearns's operation consisted of two at long intervals: the common carotid was first tied, then the subclavian after an interval of two years. The patient, a female, lived two years and three months after the ligature on the carotid, and sixteen weeks and five days after the subclavian had been tied.[2]

It may not be uninteresting to mention the periods at which the ligature came away as recorded in some of these operations.

In Smith's case the ligature on the carotid came away in 13 days; from the arteria innominata in 14 days, then followed by profuse hæmorrhage.

In Mott's case of arteria innominata the ligature came away on the 14th day, the patient living to the 26th day.

In Mr. Porter's case the hæmorrhage also occurred on the 14th day after the operation on the arteria innominata, proving fatal on the following day. In Græfe's case the patient survived the operation for 67 days.

It is an interesting fact so carefully noted by these surgeons, Mott, Smith, and Porter, that the hæmorrhage took place on the 14th day after their operations; and Smith's case of the double-simultaneous operations on the arteria innominata and carotid, then the vertebral to arrest secondary hæmorrhage.

Out of the thirty-one cases there have been twenty-eight failures, a very discouraging result; still we should not abandon this operation, and if surgeons decline to adopt and perform the operation now proposed and brought before the Society; they can avail themselves of that valuable and most instructive operation of Smith, of New Orleans—to secure the arteria innominata and carotid simultaneously; *should secondary hæmorrhage occur not to waste time in futile and useless efforts to arrest it by hæmostatics;* but directly appeal to the vertebral artery and secure it. By such a procedure all the great collateral vessels are secured and the hæmorrhage arrested, and the patient saved. From the cases recorded, secondary hæmorrhage always resulted from the distal side of the ligature, or compressor, caused by the re-establishment of the circulation in the large vessels, of which the vertebral must be considered the principal one, if not the only one, after the carotid and arteria innominata have been secured.

Owing to inattention to these remarkable arterial communications with the subclavian, surgeons were not prepared to act, and to adopt the only means afforded them by their profession when hæmorrhage occurred, which always took place on the distal side of the ligatures or compressors, and to secure the vertebral artery.

In conclusion, I am strongly of opinion that the section of the clavicle, as now proposed, prevents the laceration of the artery and the consequent fatal hæmorrhage; also to secure the common carotid artery for greater security.

I have brought this operation before the Society to elicit their opinions, and to advocate further inquiries to make it, if possible, more available to the Profession, as the surgeons in this city have been so successful in the treatment of aneurism.

The CHAIRMAN said they would all agree with him in thinking this a most valuable communication, on a subject always interesting to an Irish surgeon. With respect to sawing across the clavicle, he had no doubt it would be a most useful proceeding in some cases. In his own case, to which reference had been made, he had a chain-saw beside him, and was fully prepared, if he found any difficulty in passing the needle round the vessel, to cut across the clavicle. He was sure the point which Professor Hargrave dwelt on, that of relaxing the vessel, was a very important one. He believed that in many cases, hæmorrhage was first induced by a sudden strain on the vessel, in the place where it had been weakened by ligature. He would be glad to hear what any member of the Society had to say on the subject.

Mr. STAPLETON said it was very well-known, that cutting across the clavicle might help the surgeon in finding and in tying the vessel, but as to taking the strain off the vessel it did nothing; because, according to the cases correctly reported by Professor Hargrave, the hæmorrhage always occurred from the distal side. He granted, that in large aneurisms cutting across the clavicle might facilitate the mere operative process, but that did not prove that it would prevent secondary hæmorrhage. He thought the great improvement was that introduced by the New Orleans surgeon, in cutting off the recurrent hæmorrhage by securing the arteries from which it came. He repeated that it was not from the proximal end the hæmorrhage came, but from the distal end, and to prevent that was the great aim of the surgeon at present.

The CHAIRMAN observed that the chief point on which discussion was desired was the best mode of preventing hæmorrhage if possible. The hæmorrhage from the distal end was the point before the society.

Professor HARGRAVE in reply said, he thought the operation introduced by Mr. Smith, of New Orleans, was a most useful one in these cases. The hæmorrhage takes place from the distal side, and this was easily understood, for the vessel was scarcely well secured, when they had the recurrent circulation coming down in the carotid and vertebral, and preventing the formation of a clot, so that if they were to succeed in this operation on the subclavian artery, they should be prepared to secure the vertebral artery. Many gentlemen said that they should not perform this operation; but in his opinion they were justified in attempting it, when they saw an unfortunate man, in other respects healthy and of good constitution, suffering from a *most distressing state of dyspnœa*, and calling for anything to relieve him. In such a case he thought that by dividing the clavicle, tying the subclavian, and if necessary securing the other vessels, they put the man in the best position possible under the circumstances. He might not hear or witness it, but he was satisfied that one or other of these operations would be ultimately adopted by the profession.

Mr. STAPLETON—Why not tie all the arteries at once?

Professor HARGRAVE—Because I don't know that the man would not recover without it. I would first tie the subclavian and carotid, and if secondary hæmorrhage came on I would tie the vertebral artery.

(To be continued.)

[1] Edition 1853. Ed. 4th, 1864, p. 653.
[2] *Lancet*, Vol. 1868-9, p. 487.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEB. 10, 1868.

Mr. HENRY SMITH, President, in the Chair.

MR. FRANCIS MASON showed a piece of necrosed bone that he had removed from the left tibia of a patient at the Westminster Hospital. The specimen was about four inches in length, and included the complete circumference of the bone. The patient was a man aged forty-six, who was well until eighteen years ago, when he fell from an omnibus, and sustained a compound fracture of the left leg, and a simple fracture of the right. He quite recovered, and remained well until three months ago, when, without apparent cause, acute inflammation of the left leg came on, terminating in an abscess and complete death of the bone. Mr. Mason brought forward the case as a rare pathological specimen, the whole circumference of the bone having been thrown off. Mr. Mason said the patient was going on perfectly well, and he promised that he would show him to the Fellows of the Society when he was sufficiently recovered.

The PRESIDENT exhibited a young man on whom he had performed excision of the knee-joint six months previously. The patient remained in the hospital three months, and was discharged well with fibrous anchylosis, and only able at that time to move about on crutches. This union was now quite firm, and the limb well developed. The patient was requested to

walk up and down the room, which he accomplished without the slightest assistance, and with the utmost facility, wearing an ordinary boot. The President also showed the bones taken away in an excision of the knee-joint he had operated upon a few days before. There was great thickening of the synovial membrane, and ulceration of the cartilage on the head of the tibia, a thinning of the same tissue on the end of the femur.

Dr. THOROWGOOD then read a paper on

REMEDIAL MEASURES IN ADVANCED PHTHISIS.

The first part of the paper drew attention to the fact that life is often prolonged far beyond expectation in cases in which cavities have existed for some time in the lungs. In illustration, notes of cases taken chiefly from among the out-patients at Victoria Park Hospital were given in detail. In respect of treatment, a good deal of stress was laid on a dry and bracing atmosphere, and in avoiding all places which were reputed damp or relaxing. Confinement in one room was spoken of as a very pernicious practice, as then the patient is poisoned by the exhalation from his own diseased lungs. Among medicines, the hypophosphite of lime was highly commended; iron was spoken of as being useful when there was obvious anæmia. The pancreatic emulsion had been used in a few cases with advantage. The author then spoke of the eliminative treatment, so as to oxidise and eliminate effete matter collected in the blood, and concluded by exhorting the medical practitioner not to use one routine method of treatment, but to consider the merits of each case, and to apply the ordinary principles of pathology so as to unravel the morbid phenomena, and then bring about a more successful plan of treatment.

In the discussion that followed, Dr. CHOLMELEY said he had great faith in bicarbonate of potash in those cases in which the digestive organs were deranged.

Dr. WEBSTER spoke at length as to the reputed value of different climates for phthisical patients, and thought Cannes and Pisa by far the best places. Pau, he said, was too moist an atmosphere.

After some remarks from Dr. Sansom, Mr. Marshall, Mr. Francis Mason, and the President, the meeting adjourned.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 4, 1868.

MEDICAL REMUNERATION.

THE twentieth annual report of the Manchester Medico-Ethical Association comes to us at an opportune moment, and we, therefore, have much pleasure in giving an outline of the doings of this modest but influential Society. For twenty years it has watched over the interests of the profession in Manchester, and exercised in cases of dispute between medical men, or of alleged wrong-doing, the function of an impartial tribunal of arbitration. How well and how moderately it has exercised this high office may be judged of by the fact that its decisions seem to be in all cases respected beyond the circle of its own members. It is gratifying also to find that the balance at the bankers is really substantial.

Sir JAMES BARDSLEY, many years the President, has retired from that post, and Dr. NOBLE succeeds him. Of the questions that have engaged the attention of the Society during the past year, we are not surprised to find that the appointment of a Medical Officer of Health for Manchester should be commented upon in the report, which very properly condemns the modicum of remuneration that has been proposed to be offered, in the following terms:—

"Considering the fact that there are probably not twenty men in England who have, as yet, the special qualifications required for the office, and that it is proposed to offer for the exclusive use of his services a salary less than is frequently paid to a responsible clerk in a Manchester warehouse, it is likely that the benefit of the appointment will not for some time to come be very apparent."

Here is a practical commentary on the competition for the honour of serving the public for nothing, which has reduced so many members of our profession into the instruments of so-called charity on behalf of others!

It is the same story in every department of medical labour. The habit of gratuitous work has become so ingrafted into our daily life that we are in danger of complete decay. The parasite flourishes luxuriantly at the expense of the noble plant which droops for want of the juices of which it is thus robbed. Whence otherwise the cry of poverty which constantly assails us from our ranks? Is it not time to call to mind the proverb that "true charity begins at home?" and to warn those who lavish their gratuitous advice on the public, that they may thereby be taking the bread from the mouths of less fortunate professional brethren and their wives and children?

Unhappily, the habit of giving advice *gratis* has another evil effect. It depreciates the value of all professional service, and thereby makes the public indifferent to the welfare of their medical men. It also tends to lower the scale of remuneration in other grades, until it has reached a point upon which it is impossible for men of education to eke out a livelihood. At Birmingham a great commotion has been made by the club doctors declining any longer to starve upon the paltry pittance offered them by well-to-do artizans. Nor is it only in the capital of the midland counties that a movement for redressing this wrong has commenced. Everywhere the same evil is felt, and the same complaint made. For months the medical journals of the three kingdoms have teemed with the injustice of existing customs, and urged more or less radical remedies.

The manner in which this question is viewed by such a body as the Medico-Ethical Association of Manchester is therefore full of interest. The report we have already cited says:—

"The question of the remuneration of Surgeons to clubs, which is at present engaging the attention of various other bodies, came under the notice of the committee also, and a circular was issued to the members of the profession in and around Manchester requesting their opinion on the present rate of remuneration in this district—on what they would consider to be an equitable rate—and on their willingness to co-operate in securing the adoption of the latter. About forty gentlemen only replied to this circular, but these were unanimously of the opinion that the present rate of payment is totally inadequate and unremunerative. It will lie with the future committee to see what further steps can be taken, but

this much may with confidence be affirmed, that as long as there is so little public spirit or self-respect among many members of the profession that they will give their time, and skill, and the requisite medicines, at rates lower than would be charged by any respectable druggist for the last alone, there is little hope of amendment. This is the more deeply to be regretted because the ordinary laws of political economy ensure that, in the long run, it is the mass of poor and ignorant labourers who are the real sufferers, rather than the few educated medical men whose services they think to obtain at a cost so absurdly below their real value."

The evil is here laid bare and the case stated without any attempt to influence the reader otherwise than as a natural effect of the facts. For this reason we have thought the passage worth quotation, and we urge it upon the attention of our readers as one of the utmost importance.

We are by no means disposed to interfere with the ordinary laws of political economy; we would not place professional combinations in a different class from trades'-unions; we are no bigoted advocates of professional interests as superior to those of the general public; we are content with our natural position as a skilled and highly-educated section of society; we do not call for protective legislation; we ask no endowment, no patronage. But we do hold that in our department, as in every other, "the labourer is worthy of his hire." No other class toils unrewarded as we do. Who ever heard of honorary solicitors, or advice-gratis-giving-barristers? Does the chaplain for the honour of his calling minister for nothing? Yet, the public takes it as a matter of course that medical aid to every charity is to be had for nothing, and throughout the provinces clubs that can vote enough beer-money at every meeting to make it a profitable speculation for the tavern-keeper, or can squander many weeks' wages in a contest with masters as to the number of apprentices that shall be instructed, are not ashamed to ask medical men to accept remuneration which any of their members would scorn to take. They are quite eloquent as to the increase in the price of all commodities during the last few years, which has the effect of making their wages provide less; but assume a tone of surprise when the surgeons of their clubs remind them that they too have a right to live by their labour, and that the remuneration hitherto given has scarcely paid for the drugs supplied, much less left a margin for the toil they have undergone. It is time the profession spoke clearly and distinctly upon these points. The public must be clearly given to understand that great as is our love of science, and overflowing as are our hearts with sympathy with the sick, these feelings will not keep the "wolf from the door." It has long been a vice of English society of every grade, from the peer to the pauper, to undervalue the aid we offer. We have known the highest nobles ungenerous to their attendants, the wealthiest often require reminding of the fees they should hasten to offer; in the middle and lower middle classes the "doctor's bill" is proverbially put off till the last, and the pay of the working man's club doctor is in some parts on a level with that of those great sacrifices to humanity, the poor-law medical officers of this enlightened and wealthy community.

Birmingham and Manchester have done wisely to speak in unmistakable tones. We add our voice to theirs, because the great mission of the journalist of a scientific and learned profession cannot be adequately carried on while that profession, as a whole, is ground down with poverty. What is the advance of the medical art to men whose lives are passed in a desperate struggle for food and raiment? How shall the patient exploration of nature's secrets be carried on if the explorers have to spend more than the average of human energy on obtaining their daily supplies?

Foolish, selfish public! Your best friends neglected, forgotten. Your most faithful servants left with their wages unpaid; nay, when those servants venture to ask for payment, not only is it withheld, but they are ordered to go on working for nothing. Heavier tasks are laid upon them; they are commanded to make bricks without straw; they are reproved for murmuring, and expected to bless the hand that finds them work, but withholds from them bread. Foolish, selfish public! This cannot long continue. The cruelty must recoil upon the head that devises, and the hand that executes it. You may exterminate your servants, and then what will you do? When this generation ceases from its labours you may find none others to take their places, and then you may put your trust, or not as you please, in the mountebanks you now often reward more richly than those whose whole lives are passed in disinterested devotion to science. Plodding on in patient daily toil, intent on discovery chiefly, the medical philosopher of this age may perhaps discover that the hope of living by his labour is vain, that a grateful public will allow him to starve; and that, therefore, his best plan will be to adopt some alien pursuit as a means of obtaining his livelihood, and furnishing him with those necessaries for scientific work, which the practice of medicine no longer supplies.

THE LATE LUNACY CONVICTION.

THE conviction of Mr. SHAW, on the prosecution of the Commissioners of Lunacy, for illegally receiving into his house, for profit, lunatic patients, demands the attentive notice of the profession and the public. In the first place, it cannot be forgotten that this prosecution differs *toto cælo* from several upon which we have had occasion to comment, inasmuch, as a charge was made upon the evidence of most respectable witnesses of cruel treatment and neglect such as the Act is designed to prevent. The Commissioners, as we have frequently pointed out, are bound to prosecute wherever they find that the letter of the law has been infringed, but they have invariably shown themselves lenient, when a mere inadvertency has exposed to this ordeal gentlemen who have treated their patients with humanity and skill. They would be guilty of a gross dereliction of duty, did they not press for the utmost rigour of the law whenever they have reason to believe that unhappy lunatics have suffered captivity and cruelty at the hands of men who have allowed cupidity or neglect to overcome their better feelings.

The first indictment under which Mr. SHAW was prosecuted, alleged that the patient, Mrs. WESTON, was made to perform menial work in the prisoner's family, and the case was so clear that Mr. Serjeant BALLANTINE, who was retained for the defence, consented to a verdict of "guilty."

The second indictment was much more serious. It not only laid to the prisoner's charge the reception of the lunatic, Mr. CLODE, but charged wilful neglect of that patient. At first, £60 per annum was paid for Mr. CLODE, but after that £120. Still it seems that no amelioration took place in the unfortunate patient's condition. Dr. BLANDFORD and Dr. BENNET were sent by the Commissioners to examine the patient, and the description they gave of the state in which they found him, exceeds every-

thing we have heard of for many years. The room in which the patient was found had no fireplace; it was only about 12 feet square, and 6 feet in height. The man occupied a straw mattress; he had nothing on except an old flannel shirt, and a piece of carpet flung over him. These were in a most disgusting state, reeking with filth and excrement, and unfit to be touched except with a pitch-fork. The smell of the room was overpoweringly nauseous, although the patient was so far lost to his state as to say he was "quite comfortable."

It is not surprising that such evidence sufficed to insure a conviction in spite of the attempt to raise a discussion as to the difference between lunacy and unsoundness of mind. At the conclusion of the case for the prosecution Mr. Serjeant BALLANTINE confessed that he was virtually without a defence, since, after carefully watching the evidence, he could not contradict it.

Of course a verdict of "guilty" resulted in both cases, and it was in consequence of the peculiarly heinous nature of the whole transaction that the LORD CHIEF JUSTICE expressed with such force the sentiments that will find an echo wherever they are read.

We deeply regret to be called upon to epitomise such a case. There is something particularly revolting in the idea of ill-using a person unable to take care of himself, and one case like this makes a deeper impression on the public than the thousands in which our lunatics are surrounded with every comfort. But the very fact that there is little likelihood that another instance of the kind will soon recur, renders it the more imperative upon us to notice this instance. The feelings produced upon us by perusing the trial have been so well expressed by the LORD CHIEF JUSTICE that we have no hesitation in appending his remarks by way of concluding this disagreeable summary. In passing sentence he said:—

"You have been convicted upon two indictments, and I must say I consider the case is a very serious, and indeed, an aggravated one. The case of Mrs. Weston is one of an undoubted lunatic. The statute is a most salutary one; the protection it gives to lunatics is most valuable, and it is essential that it should be zealously upheld. And, as to the first case, you have broken this salutary law, and have done so knowingly and wilfully. It appeared that you put this poor lady to menial work, and, having received her as a patient, you treated her as a servant. I feel that I must pass a severe sentence. And the sentence upon you in the first case is, that you pay a fine of £100, and be imprisoned for two months, and until the fine is paid. As to the other case, I dare scarcely trust myself to speak of it. The evidence can leave no doubt as to the miserable condition in which that unfortunate man was allowed to be, with your knowledge. And what makes the case infinitely worse is, that you claimed and received a double rate of remuneration for his care and maintenance, and, so far from expending a single shilling of it in the promotion of his comforts, you allowed him to go from bad to worse, until he lay, so to speak, wallowing in his filth in the abominable condition we have had described. It is a most aggravated and scandalous case. A point of law has been raised and reserved on this case of which, if it is determined in your favour, you will have the benefit; and in that case will escape punishment imposed by law, though I should hope your own conscience will not leave you wholly unpunished for conduct so utterly discreditable to you either as a man or as a Christian. It is my duty, however, to pass sentence upon you for the offence of which, in this instance, you have been convicted; and the sentence is that you be imprisoned six months and pay a fine of £100, and be imprisoned until it is paid."

INSPECTOR-GENERAL MOUAT, V.C., C.B.

THE *Gazette* of the 3rd instant contained an announcement that this distinguished officer, lately the head of the Army Medical Department in Ireland, had been placed on half-pay, and as there is, as it seems to us, much injustice in this quasi-censure on Mr. MOUAT, we have taken the trouble to make ourselves acquainted with the facts of the case.

Mr. MOUAT has been about 30 years in the army, and has spent 22 years of that time abroad. About 18 months ago he returned from foreign service, and not many months afterwards he was placed at the head of the Irish Army Medical Department. Recently he was called on to proceed to India to fill the most lucrative post in his line.

He asked for respite on the score of health, as recommended by a Medical Board, at the same time offering to proceed as ordered if the officer next on the list declined to submit to the infliction of £3000 a-year. He is admittedly a most effective officer in his present or late position, and he is not a valetudinarian. Yet he has been placed on half-pay, notwithstanding his readiness to proceed according to orders, and, as report has it in Dublin, for some unworthy reason to which we do not care to refer more particularly at present.

A reference to Hart's Army List will show that Inspector-General MOUAT has been 30 years in the service, as we have already noted—that he is one of the most distinguished Medical Officers in it, having been repeatedly mentioned in public dispatches, promoted for merit, and honoured with special marks of the Royal approbation; in fact, his services, embracing as they do the medical charge of the large field hospital for wounded in the Crimea, and responsible charge of a large army in the field in two subsequent campaigns, so far exceed that of the present head of the medical department, and all his predecessors, except Sir J. MACGRIGOR, that it is difficult to understand how an officer of such marked and conspicuous merit can be subjected to so great an injustice as compulsory half-pay. There must be something very wrong in such a system, and Dr. LOGAN is bound to satisfy the medical profession that the interests of the public service required, and the circumstances fully justified, so unusual, arbitrary, and tyrannical a proceeding as forcing an officer on half-pay, both able and willing to proceed anywhere, and who has not been accused of any misconduct. He is also bound to quote the apocryphal rule or regulation of the service under which this has been done, and to state if it has ever been promulgated to the army, and if not, why it has been withheld. If old officers, of such standing as Mr. MOUAT, are to be subjected to such harsh and ungrateful treatment, what must be the fate of the juniors under such a regime? Medical candidates would do well to consider their future, before undertaking service under such circumstances.

We feel persuaded that if the attention of his Royal Highness the DUKE OF CAMBRIDGE be called to this injustice to Mr. MOUAT, he will see it rectified speedily and effectually. At any rate, the House of Commons is open, and we hope some independent member will see to it that the Director-General answers for his stewardship in this matter. At present the case seems to be verily this—"One soweth, and another reapeth."

Notes on Current Topics.

The Public Health.

THE deaths registered in London in the last week were 1266. The average number for that, the ninth week of the year, with the necessary correction for increase of population, is 1551. The health of the metropolis, therefore, continues satisfactory, the mortality being during the week 285 less than the weekly average. There were only 252 deaths from zymotic diseases, the average number being 321. We regret to notice among these 18 deaths from small-pox. There were, further, 22 from measles, 23 from scarlatina, 9 from diphtheria, 55 from whooping-cough, 50 from fever, and 13 from diarrhœa.

Consumption caused 144 deaths, bronchitis 138, pneumonia 74, disease of the heart 50.

The annual rate of mortality in the week was—in London 21 per 1000, in Edinburgh 31, Dublin 27, Glasgow 33, Bristol 26, Birmingham 27, Liverpool 29, Manchester 32, Salford 28, Sheffield 20, Leeds 24, Hull 27, Newcastle-on-Tyne, 23.

Hope for Liverpool.

LAST week, the Town Council of Liverpool gave the Health Committee authority to borrow £71,000. This sum is to be devoted to sanitary improvements. One of the first works undertaken will be the conversion of privies into water-closets.

We trust this may be the beginning of a time in which the health of the townspeople will be one of the first considerations of the local authorities.

Officer of Health for Manchester.

MR. LEIGH has been appointed Medical Officer of Health for the city of Manchester, at a salary of £500 per annum. It is time, indeed, that some such appointment should exist, for Manchester has long been in anything but a satisfactory state. Last year the death-rate rose to 31·4. The annual death-rate during the last nine weeks of the present year averaged 31·6 per 1000, against 33·3, 34·6, and 33·1 in the corresponding nine weeks of 1865-6 and 7. Last week the proportional number was 32·1 per 1000; the death-rate being augmented by scarlatina, whooping-cough, and the typhoid forms of fever. The deaths of children under five years of age constitute about half the total mortality of the city. When the annual rate of mortality in Manchester was 34·8 per 1000 of population, then, out of 10,000 children born, 5121 were boys, and 4879 were girls; and 3609 boys and 3703 girls were alive at one year of age; therefore, 1512 boys and 1177 girls died in the first year, or out of 10,000 children born, 7312 were alive at age one, 2689 having died in the first year. At age five, out of 10,000 children born, about 5145 were alive, 4855 having died before attaining that age. In England and Wales, out of 10,000 children born, it is found that 8505 are alive at age one, 1495 having died in the first year. At age five, 7368 are alive, 2632 having died before attaining that age.

These figures clearly show that the City Council ought long ago to have taken this step. We hope to find that amelioration will shortly follow the appointment of a competent officer.

Starved under the Poor-law System.

LAST Thursday, Dr. Lankester held an inquest on the bodies of two boys who had died of starvation. The case was a very sad one. The father, a whitesmith, was ill, and so unable to follow his work. His wife, on applying for assistance at St. Pancras Workhouse, was reproved—told "that as her husband was a whitesmith she should not ask for relief." This witness stated that this "was after the poor fellow had been out of work for six months and ill." We should like to hear from the official who thus reproved this half-starved wife, who, in his opinion, should apply for relief. There was abundant testimony of the man's needs, yet he was deprived of the relief provided by the law of the land for such as he. In consequence of this his two boys were actually starved to death. Is it not time to try some of the poor-law officials for manslaughter?

This poor sick whitesmith was offered work in the stone-yard at 9d. per day, but could not do it. Other help was denied unless he and all his family would go into the workhouse. As the poor fellow sometimes got a job by which he earned a few shillings, he postponed this fate as long as possible, and from his inability to buy them food enough his two boys died. He kept out of debt, but could not feed his family; so the humane poor-law officials let them die. England may well boast of possessing a poor-law.

The Sick Poor in Workhouses.

AT a meeting of the Association for improving Workhouse Infirmaries held last Friday, a general opinion was expressed that it would be desirable to take steps to obtain a Parliamentary inquiry into the whole subject. It also transpired that a man who had been obliged to resign the mastership of a Workhouse had been appointed to the same post in another Workhouse, and that the Poor-law Board had given its sanction. It was understood that a member of the Association would put a question in Parliament in reference to this case.

Lady Nurses.

IT is greatly to be regretted that the organisers of the system of nursing by a class of persons superior to those hitherto employed in hospitals, have not kept before them the principle most essential to the practical working of the system—the distinct subordination of the nurses to the medical officers. Such a position does not imply the least degradation, it is simply and manifestly necessary to the discipline of an hospital, and it is for want of such an explicit understanding that the lady-nursing system has, so far as it has been tried, broken down. A nurse who entertains, and perhaps expresses, her own opinion about the treatment of the case which she may be called upon to attend, cannot be a good nurse, for she may have no confidence in what she is directed to do, and very probably may convey that absence of confidence to the patient. As long as lady nurses are not responsible to the medical attendant, but only to the lady superintendent, who naturally feels herself bound to take the part of her subordinate in case of complaint, so long must the relation of the doctor and nurse remain unsatisfactory. It has proved to be a source of the greatest discomfort and irritation in the military service, and as long as it is found to be so, it will never be cordially adopted by the hospital surgeons.

Signing Lunacy Certificates.

ON the Northern Circuit last week, a person was tried for signing a certificate of lunacy without being duly qualified. In the certificate, according to the daily papers,

he described himself as a "Physician and Member of the College of Surgeons of Glasgow." He was acquitted. It is well enough known to our readers that there is in Glasgow only the "Faculty of Physicians and Surgeon," that could be with any approach to sense thus described. The point in the case which saved the accused, seems to have been that the signature of the prisoner was not properly proved, whereas he had a brother in practice who could legally have signed the certificate. We recommend the highly respectable Faculty of Glasgow to make inquiries. Meantime, we cannot help thinking that the lawyers have evinced great carelessness or great ignorance in their management of the case. Surely it would not have been difficult to show if the person accused really signed the certificate, and if so, whether he was entitled to do so. Otherwise, what is the use of the Medical Register?

The Study of Mental Disease.

We understand that the initiative of special arrangements for the study of mental diseases has been taken by the University of Cambridge. Dr. Mackenzie Bacon, the Superintendent of the County Asylum, Fulbourn, has been appointed to deliver a systematic course of instruction in this department of medicine, and opportunity will be afforded for clinical experience in the various forms of mania within the asylum.

New Books.

The issue of medical publications within the last month has been small in number and uninteresting in character. But two new works have issued from the medical publishing houses of London. Mr. Coulson's expected work on "Stone in the Bladder, with special reference to its prevention, early symptoms, and treatment by lithotrity," appears as an octavo of 142 pages, issued by Messrs. Churchill, at the price of 6s., and Mr. Balmanno Squire presents the profession with a "Manual of the Diseases of the Skin," with coloured plates, in a post octavo volume of 300 pages, at 24s.

In reprints and later editions we have Sir Henry Thompson's "Diseases of the Prostate," its third appearance. It is issued by the Messrs. Churchill as an octavo of 370 pages at 10s. Mr. Chavasse also publishes in the same form the ninth edition of his "Advice to a Mother on the Management of her children."

From Scotland, a good *brochure* by Dr. James B. Russell, on "Stimulation in Typhus, with incidental remarks on its natural history," is published at half-a-crown, by Maclehose, of Glasgow. Sir J. Y. Simpson's proposal to stamp out small-pox appeared early in the month as a shilling pamphlet from the firm of Edmondston and Douglas, and created, as our readers are aware, much interest.

Messrs. Fannin, of Dublin, have just issued, in large octavo, with two lithographic illustrations, Dr. Henry Wilson's "Lectures on the Theory and Practice of Ophthalmoscopy," portions of which have already appeared in the *Dublin Quarterly Journal of Medical Science*.

We have from New York two translations from the German—Klob's "Pathological Anatomy of the Female Sexual Organs," an octavo of 320 pages, at 14s.; and Dr. Tobold, on "Chronic Diseases of the Larynx," at 16s.

From France is issued "Lorain on Cholera," a study in clinical medicine and pathological physiology," at 7s.

Representation of the London University.

The leading Conservative graduates have determined to make further inquiries as to the strength of their party, with a view of bringing forward Professor Miller as their candidate. Himself a medical graduate of high scientific attainments, there can be little doubt that his candidature will be favourably received by those graduates whose political opinions are in accordance with his own. The leading medical graduates of Conservative tendencies will undoubtedly support him, and should this party be able to carry the election a medical man may be returned for the University.

Should the Conservatives find that there is little chance of success, we understand that they will support Mr. Lowe as the most conservative of the other candidates. But if politics are not quite harmonious, should not the electors of such a constituency give science further consideration? We are informed that some preliminary meetings will shortly be held with a view of deciding upon the question of bringing forward Dr. Miller.

The Medical Arrangements of Dublin University.

The arrangement which we announced last week under which Mr. Butcher is transferred from Mercer's Hospital to Sir Patrick Dun's is thus announced by the authorities:—

"Dr. Butcher has been appointed by the Board of Trinity College to teach practical and operative surgery to the medical students of the College in Sir P. Dun's Hospital, commencing from 25th March, 1868."

The following regulations have also been announced for the guidance of candidates for the University degrees in medicine and surgery:—

"The candidates at the previous medical examination, and for medical degrees, are liable to examination in physics—(viz., heat and electricity), as well as in chemistry.

"The candidates for medical scholarships are liable to examination in the elements of comparative anatomy, as well as in human anatomy.

"The examination for degrees in surgery will in future extend over two days, and be conducted by a court of five examiners, of whom one, at least, shall examine specially in operative surgery."

Dr. James Wharton, Surgeon to the Meath Hospital, and Lecturer in Surgery in the Ledwich School of Medicine, has been appointed Examiner in Surgery in the University in conjunction with Mr. Adams, the University Professor of Surgery, and with Mr. Butcher.

The Late Sir J. Gibson.

Sir James Brown Gibson, K.C.B., M.D., late Director-General of the Army Medical Department, has died at the age of 63. He had risen through the various grades to this high office, having entered in 1826. He retired last year, and had gone to the Mediterranean to pass the winter. He was Honorary Physician to the Queen, and had received during his long career various decorations.

The Late Dr. Daubeny's Library.

The Magdalen College at Oxford has acquired, by the bequest of the late Dr. Daubeny, the whole of his very valuable library and scientific apparatus, and the sum of £1000 left as an endowment for the curator, to whose charge they shall be committed. It is expected that the College authorities will add a yearly sum from their own income to bring the remuneration up to an adequate amount, and to main-

tain the gift in a condition of efficiency for the advantage of the students of the College.

THE inaugural banquet of Dr. Carroll, the first medical Lord Mayor of Dublin, was held in the handsome ball-room of the Mansion House, on the evening of Tuesday, the 25th ult., and was honoured by the presence of his Excellency the Lord Lieutenant, Lord Strathnairn the Commander of the Forces in Ireland, and a majority of the distinguished persons officially connected with the Irish Government. The cordial feeling of the Lord Mayor towards his medical brethren was evinced by the liberality of his hospitality towards the profession. Almost all the physicians and surgeons of eminence in Dublin received invitations, and the Presidents and Vice-Presidents of the Colleges of Physicians and Surgeons occupied places on the *dais*. The toast of the Medical Profession was proposed in very feeling terms by the Lord Mayor, and was responded to by Dr. Churchill, the President of the King and Queen's College of Physicians in Ireland. The banquet was on the most generous scale, and both the *menu* and the attendance were pronounced to be markedly superior to those of former civic entertainments.

THE following classical invitation to a medical meeting was recently issued at New York. It calls to mind Swift's ludicrous latin doggrel:—

Apud in is almi des ire,
Mimis tres i ne ver re qui re.
Alo veri findit a gestis,
His miseri ne ver at restis.

The literal translation of which is:—

A puddin' is all my desire,
My mistress I never require.
All over I find it a jest is,
His misery never at rest is.

The *savants* of New York invite their friends as follows:—

"Doctores ! Ducum nex mundi nitu Panes: tritucum at ait. Expectu meta fumen tu te & eta beta pi. Super attento uno Dux, hamor clam pati ; sum parates, homine, ices, jam, etc. No Sideror Hoc. '*Festo resonan floas sole.*' Nov. Ebor Jan. 20."

Doctors ! Do come next Monday night to Panes. Try to come at eight. Expect to meet a few men to tea and eat a pit o' pie. Supper at ten to you know, ducks, ham or clam patty. Some (parates?) hominny, ices, jams, &c. No cider or hoc. Feast o' reason an' flow o' soul.

HARVEIAN SOCIETY OF LONDON.

FEBRUARY 6TH.

Mr. ERNEST HART, President, in the Chair.

DR. DRYSDALE exhibited a case of almost complete baldness from tinea decalvans.

Dr. FULLER then read a paper on the doses and actions of medicines.

He began his address by tracing the causes which have contributed to the prevalent distrust of medicine ; he then pointed out how this distrust has led to enormous and almost scandalous differences in the practices of different members of the profession, and concluded by asking the Society to take upon itself the arduous, but honourable work of investigating the action of medicines, and the doses in which they are tolerated in certain disorders, with the view of obtaining some trust-worthy therapeutical data.

The causes to which Dr. Fuller attributed the prevalent distrust in the efficacy of drugs, may all be resolved into the three following formulæ :—1st. The natural reaction from the overweening confidence in medicine, and from the wholesale and indiscriminate administration of drugs, which prevailed at the beginning of the present century. 2nd. The discovery that certain disorders if left to themselves in many instances tend to recovery. 3rd. The prevalence of extreme ignorance as to the doses in which each drug is tolerated by the system, and as to the dose in which it must be administered in order to obtain its curative effect.

From lack of knowledge on these last important particulars, some practitioners prescribe inadequate doses of a remedy, observe that it fails in modifying the course of the disease, and utterly ignoring their own want of judgment, blame the remedy, and learn to distrust it. Others in their search after precision in all that relates to the healing art, administer each remedy separately, and in a given dose in all cases, without regard to the strength or constitutional peculiarities of the patient, and without any reference to the state of the secretions, and finding that it often fails under these circumstances to effect the change they desire, conclude that it does not exercise a curative power. They insist that if a remedy possesses the power of modifying any disease, that power ought to be manifested whenever the remedy is administered, and refuse to admit in regard to medicine, what they are forced to acknowledge in respect to food, that "one man's meat is another man's poison." They forget that when the secretions are scanty and the internal organs congested, quinine even will fail to cure ague, and anxious, over-anxious, as to what they are pleased to term precision in their observations, they abstain from the administration of evacuants, which are essential even to the action of quinine. Thus in one way or another, while striving after accuracy, they arrive at conclusions the reverse of truth. Others, relying upon experiments on the lower animals, and ignoring or utterly regardless of the fact, that remedies act differently on different species of animals, conclude that some of our more valuable drugs do not deserve the reputation they have acquired, because, forsooth, the effects which have been observed to follow their administration in man are not manifested when they are given to dogs, cats, rabbits, and other animals. Others, again, of a still less practical turn of mind, are unwilling to admit the curative action of a remedy which has not an obvious effect on the pulse or secretions, or for which they cannot account on purely logical grounds. Inductive reasoning which has led to valuable results in chemistry and other sciences, is equally applicable, they think, to therapeutics, and in utter forgetfulness of the fact that inductive reasoning will not even serve to explain the action of quinine in curing ague, of jalap in stimulating the action of the bowels, or of chloroform in producing anæsthesia, refuse to admit the value of any remedy except on the ground they have chosen.

Thus, by one means or another, distrust has come to prevail, and discredit has been thrown on the curative action of drugs. Disease is left to take its natural course, and homœopathy is practised under the guise of scientific medicine. The public, who see by the reports of cases in our periodical literature, how little heed some men pay to medicine, are becoming indoctrinated with the belief that drugs are of no avail, and consistently betake themselves to the professed homœopath. For this belief, Dr. Fuller maintained that there are absolutely no grounds, and urged the Society to appoint a Committee for the purpose of investigating the subject of therapeutics and the actions of medicines. If, he said, it should prove on inquiry that drugs are of no avail in modifying the course of disease, let us, as honest men, avow our mistake, alter our practice, and admit that homœopaths have had just cause for their vilification of the legitimate practice of medicine ; but if, on the contrary, the labours of the Committee result in establishing the curative action of medicines when properly administered in doses, and in combinations suited to the exigencies of each case, the profession may fairly hope to obtain as the result of the investigation some trustworthy therapeutical data. The investigation must necessarily be coeval with the existence of the healing art, but the labours of the Committee if carefully conducted, would serve as a model to future inquirers ; the conclusions at which they arrive would be a nucleus to which other facts might be added from time to time, until information is obtained on the healing art, which would be indispensable to every practitioner, and, meanwhile, the Harveian Society would have the honour of inaugurating an inquiry, which would not have been unworthy of the Royal College of Physicians.

Mr. SEDGWICK thought that one of the great wants of the day was a Society through which we might obtain a better and more exact knowledge of the actions of medicines. Most inefficient doses of many drugs were prescribed, in consequence of the supposed danger of administering them in large doses. He was in the habit of giving digitalis in much larger doses

than was usually considered advisable, and had never seen any ill effects produced; and he considered there was no sufficient evidence of its accumulation in the system. In the mennorrhagia of women of relaxed habit, he found the tincture of digitalis especially useful in doses of from one to two drachms. An important point, on which much information might be gained, was the difference in the action of medicines when administered otherwise than by the stomach. Croton-oil seeds, for instance, in a case where the dust from them was accidentally inhaled, produced constipation; and it is well known that purgation does not necessarily follow the external application of the oil.

Dr. C. J. B. WILLIAMS could not forbear taking a retrospective glance to the time when he formerly appeared at this society, twenty-five years ago, in the companionship of Marshall Hall, Babington, Theophilus Thompson, and others; and he felt deeply moved, in looking round, as he missed the features of so many familiar friends. He congratulated the society on the success it had attained, and the important subjects which its committees had lately investigated, and on its courage in taking up a subject of such vast extent and importance. For his own part, he thought that not more was to be gained from a committee on this subject than from the social intercourse and conversation amongst medical men, to bring about and encourage which these societies were originated. Men in large and general practice have no time for committing to paper, or otherwise formally publishing, the information they are daily gaining, and so their individual experience dies out with them; the great knowledge and the masses of facts such men have often worked up being lost from the want of sufficient intercommunication amongst the members of the profession. There is no department of medicine more difficult, but at the same time there is none more important, than that of therapeutics; for where is the use or end of our science unless we can find some method of curing or alleviating disease? It is only by combined operation, by persevering investigation, and by minute attention to detail, that we are likely to overcome the difficulty of placing the treatment of disease on a satisfactory basis; and, in contradiction to this, it is humiliating to see how lightly the subject of treatment is commonly regarded, being usually dismissed in a few words at the end of the relation of a case, perhaps tediously elaborated in every other particular. It is too much the habit to decry new modes of treatment. Undeserved doubt is often thrown on the value of a drug from its careless or improper administration, from its being given in too large or too small a dose, or in an unfit combination, and from a variety of other circumstances. In a case of ague seen by Dr. Williams the patient had been taking quinine for some time in the form of pills, but without any effect. On examining the evacuations, some of the pills were seen in an unaltered condition. Quinine in solution was then prescribed, and a few doses effected the cure of the patient.

Dr. BROADBENT differed from Dr. Fuller in many points, and especially as to the probable value of the information likely to be collected by a committee. The amount of work to be done is enormous, and the time required would not be limited by the lifetime of one generation; it is work, too, requiring the most skilled powers of observation and the highest exercise of judgment. By applying to indiscriminate individuals for their experience and opinions, the committee would obtain a mass of materials of varied and questionable worth, and from which but very unsatisfactory conclusions could be derived, since the majority of men have never seen the natural course of a disease. This, the natural history of disease, is the first great problem to be ascertained: and it is now being worked at most zealously by men well fitted by aptitude and education for the task, and in charge of hospitals, where only the subject can be properly studied. Again, as to the modifying influences of different conditions of the system, how few men are really able to judge of these! Of the doses of medicines, we have already, in systematic treatises and scattered throughout the current literature, as trustworthy information as is likely to be collected by a committee; and we have a vast mass of information handed down to us by older writers, who believed firmly in their medicines and modes of treatment, and which is of equal value with any that might be indiscriminately collected at the present day. The remedies referred to as scattered throughout the country, and their value lost to the profession by their being limited to particular generations of men, were for the most part handed down by those who had never used anything else, and could therefore know nothing of the comparative value of any other method of treatment. A committee may be of use in making experiments with new remedies, and in trying the effects of various drugs in particular diseases, and an amount of information may thus be got together which will be useful to succeeding workers as a quarry from which they may obtain materials towards building up a true science of therapeutics. What we want at the present day is precise information. Our accurate observations will be to future medicine as the facts of chemistry are to the scientific system of which they are the foundation. The scepticism of the present age is but a healthy reaction from the contented and idle leaning on tradition which formerly prevailed; and the only way to get rid of it is to base our knowledge on careful induction from well-conducted experiments. As it is, remedies come into fashion, die out, and come in again. For instance, Dr. Glover, twenty-five years ago, introduced the bromides and wrote on them. Remedies come and go because men have no guide as to their real value except the opinion of the introducer. In trying remedies, it is necessary to have some kind of plan. His (Dr. Broadbent's) plan is to take substances chemically allied, such as arsenic, bismuth, antimony, and phosphorus, and try whether they are not therapeutically allied also. From his present results, Dr. Broadbent has reason to believe this is the case; that phosphorus, for example, is useful in the same class of cases that arsenic is known to be.

Dr. SUTTON said that the first thing necessary was to learn the natural course of disease. Extensive and valuable experiments have often been made with remedies, and certain results arrived at which have afterwards been completely upset by finding that the disease over which they were supposed to exert an influence got well just as soon without them. He had seen a very large number of cases of pleurisy with effusion recover without any medicine at all; so with pneumonia; in cholera, too, under the most opposite plans of treatment, a certain number of cases recover. Our duty is to ascertain, as far as we can, what class of cases is likely to get well of themselves and what is not. When in charge of the Cholera Hospital, experimenters frequently asked to be permitted to try particular remedies. He told them that he would divide the patients admitted into two classes, those who were, according to his experience, evidently likely to get well if left alone, and those who were not. They might deal with either or both; but the results would necessarily be very different in the two classes, and not comparable. This was a frequent source of fallacy.

Dr. DRYSDALE thought Dr. Fuller used the word empiricism in a wrong sense, as in most cases we know beforehand the action which drugs are likely to produce, and so we really proceed by induction. Empiricism consists in using drugs, such as quinine, iodide of potassium, &c., of which we do not know the mode of action on the organs. It is almost impossible to get at results by the empirical method; and it is only by mere chance that we have discovered such facts as that quinine will cure ague; colchicum, gout; arsenic, certain forms of skin disease, &c.; and we know no reason why these remedies are useful in these diseases. The Committee should limit themselves to the discussion of points on which evidence was already accumulated; experiments can only be properly carried out in hospitals.

After observations by Mr. ISAAC BROWN and Dr. KIDD,

Mr. BENSON BAKER said that he found there was a great difference in the action of drugs upon people living in the country and upon those living in town; it was also important to bear in mind the condition of the patient at the time of administration, and the circumstances surrounding him.

Dr. SILVER stated that considerable advances were being made of late years in the science of therapeutics, especially in Germany, where some important experiments were being made as to the chemical action of drugs on the blood and other tissues. It was found that arsenic had a preservative action on the living tissues as on the dead; that it prevented oxidation, and diminished the excretion of urea. Clinical experience was very valuable; but chemical investigation he believed to be of still more value. The different forms and combinations of medicines should be sought out, and their actions investigated. Of new remedies, there were scores unknown to us in daily use in America; and some of our own men—notably Sir James Simpson—were in the habit of using many drugs rarely heard of beyond their own sphere. But, with regard to nearly all of these new remedies, they are alleged to have so many and such diverse actions, that we become sceptical as to their having any action at all. The action of some secret remedies was worth taking up, some, such as Warburg's fever tincture, have established a real and well founded reputation.

Dr. MEREDYTH put more trust in ascertaining the physiolo-

gical action of medicines, and thought we must have a proper classification to furnish a scientific basis for our investigations.

Dr. BEHREND thought that one cause of the present scepticism was the enormous adulteration of drugs practised, making it commonly doubtful whether a patient was really taking what we prescribed. A patient of his took extract of belladonna for some time without any effect; but, on getting his medicine from a fresh druggist, a few doses sufficed to effect a cure. The Committee should endeavour to get legislative action on this subject.

Dr. DANIEL suggested that different remedies should be chosen for discussion on different evenings.

Dr. CAMPS had found a great difference in the action of drugs obtained from different places. Physiology and chemistry aid us in arriving at approximate truth; but we cannot expect to get exact results with such a complex machine as the human body.

The debate was here prolonged, at the wish of the Society, beyond the usual hour.

Dr. HANDFIELD JONES thought we had already pretty well ascertained the natural history of some diseases, such as the exanthemata; of others we have great difficulty in tracing the history, as we know not when they begin or end. He had prognosticated an attack of rheumatism from the smell of the patient, and the flying symptoms one month before the actual attack occurred. Of many diseases, we must almost despair of obtaining the natural history; and it seems preposterous to wait for this before attempting to relieve our suffering patients, when a very short observation will show us whether a remedy is likely to do good or to minister to our patient's comfort. One duty of a Committee would be to find out whether acute disease can be shortened in duration. Dr. Jones believes that it can; that low diet and lowering measures often cut short an attack. For example, dysentery may most decidedly be shortened by leeches and ipecacuanha. What are diseases? and what is the treatment of a disease? These questions we cannot answer; one patient with delirium tremens may be cured by a purge, another by opium, another by tartar emetic. For our indications as to treatment, we must look to the individual patient rather than to the disease; we must examine all his tissues and organs, and find out how they act and secrete, and how they are influenced by various agencies. We shall then be able to apply our therapeutic knowledge to put him in a better position to overcome his disease.

Mr. CURGENVEN thought that one cause of the present scepticism was the cessation of the apprenticeship system, so that many men now went into practice without any knowledge of the appearance of drugs or of their incompatibilities, &c.

Dr. POLLOCK believed that the Committee, if it took too wide a programme, would merely get together a heterogeneous mass of opinions, which would be of little value. What we require is, to watch and compare the application of remedies in similar sets of phenomena; and this investigation can only be carried on by very careful observers in large hospitals. In order to ascertain the real influence of drugs, they must be given singly; and he found that even in actual practice fewer combinations were used, and even fewer drugs given, as experience was gained and a man became older. He would rather propose that the Committee should investigate the effects of remedies on the healthy subject.

The PRESIDENT congratulated the Society on the presence of so many distinguished members and visitors, and on the part they had taken in this interesting debate. He did not take so wide a view of the duties of the proposed Committee as some of the speakers, who appeared to think it was intended to take up the whole subject of the treatment of disease. It would be left to the committee to select a small portion of the subject at a time; perhaps the action of one drug, or the natural history of one disease, and to bring up special reports from time to time for discussion in the Society. If the investigations were properly limited, great good might result from them. There are many points to be cleared up with regard to some of the most commonly used drugs; for instance, as to the proper doses of iodide of potassium. He gave instances of great varieties of opinion on this subject. Summing up the opinions expressed during the evening, he discussed briefly the causes of the existing scepticism, which he believed to be a healthy revolt against the mass of heterogeneous traditions with which medicine is loaded; and expressed the hope that the Committee might assist to clear a small patch of ground, if it could not begin to build.

Dr. FULLER, in reply, had no intention of proposing a Committee to take up the whole subject at once, but that it should be left to the Committee to select certain points and to investigate them thoroughly. Most valuable information might be obtained from country practitioners, many of whom were celebrated throughout a whole county for their treatment of some particular disease, and it would be surely desirable to ascertain their traditions, experience, and methods. The combination of medicines is often most serviceable, and may often increase the activity of any one of those combined; but in experiments it is certainly desirable to confine oneself to single drugs. He concluded by moving the appointment of a committee, to make a preliminary report to the Society at as early a date as convenient, the committee to consist of the following gentlemen: —Drs. Broadbent, Tilbury Fox, Fuller, Hare, Hickman, Handfield Jones, Morton, Pollock, Sanderson, Sieveking, Messrs. Ernest Hart, Curgenven, and Sedgwick, with power to add to their number.

This was carried unanimously.

Correspondence.

ON THE REMUNERATION OF MEDICAL OFFICERS TO BENEFIT SOCIETIES.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As there is a great deal of agitation just now with regard to the payment of medical men holding club appointments, I trust the following suggestions may not be out of place. One cannot help thinking how great a pity it is that all club-surgeons (in towns at any rate) cannot by some means or other come to a determination to seek for more payment for their services, all agreeing to be faithful to each other, and to resign in a body if their just demands are not satisfied; at the same time the neighbouring medical men should promise to stand by them and uphold the honour of the profession at large, by refusing to have anything to do with the clubs in the event of the old surgeons being turned off, and the clubs offered to any of them because the former asked for more money for their services. Now suppose a club paid a surgeon after the rate of five shillings for each member's attendance and medicine a-year, I think even then the sum would be much too small to meet the extra work demanded of the club doctor—by extra work, I mean more particularly early morning, evening, and night visits. I believe all such visits should be paid for in addition (say out of the general funds of the club, or by individual members as agreed upon amongst themselves) to the standing fee for general attendance, for one must bear in mind that after a surgeon has accepted a club contract, at the present rate of payment, he is entirely at the mercy of any member thereof who may fancy, because the doctor is paid for his work, that he can summon him to his house at any hour of the night, let the cause be ever so trifling; and should the surgeon remonstrate at being thus unnecessarily fetched out, he generally meets with this reply—"Well, sir, you know, being in a club, I thought I might as well have you as not." Now had such an individual to pay half-a-crown for such a visit, he would have thought twice before he sent for the doctor, perhaps tried the effect of a few home remedies, and waited until the morning before he applied for aid, unless necessity compelled him to call in such aid sooner. If one can obtain the doctor gratis in the night, then have him! If it cost one anything, wait and see how things turn out! What the club-surgeon wants, is protection from a few members who never consider his time, and who never care how much extra trouble they give him; and who for the merest trifle will have him to see them, instead of putting themselves to the inconvenience of calling upon him at the surgery. If asked, why did you not come to me? the surgeon has cast in his teeth,—"Are you not paid for your work?" Yes, certainly, after a fashion, but the sum is so absurdly small in proportion to the work done, that you would never find the members composing such a benefit society doing their work, whatever it might be, at such a ratio of payment, not they, forsooth! But still they are unreasonable enough to expect their surgeon to do so, and I am sorry to say there are many to be found who still will work for a small fee, either because they are content with it—or, to be more charitable, I suppose necessity compels them to do so; for two reasons—1st, in many cases to make both ends meet, for if they gave up a club, they must part with some of their private patients; 2nd, they know but too well if they asked for advance of salary they would be dismissed, and that other medical men would only be too glad to

come forward, hat in hand, to solicit the honour, &c., to be elected club-surgeon on the old terms, or may be after a lower rate of payment; a humiliating and melancholy fact, but no less a true one for contemplation and reflection by the whole of the medical profession at large. Unity is strength we all know, and if club-surgeons would only decline in a body to have anything more to do with clubs on the old terms, and obtain the support and sanction of their professional brethren, which no honourable member of the profession would refuse, I feel certain they would obtain a fair remuneration for their services, and one the working-class could well afford to give. I think, in addition to the retaining fee for general attendance and medicines, something ought to be paid for each *first visit* (nothing for the subsequent ones of the same illness)—according to the time the surgeon has to pay the first visit. We will divide such visits into *ordinary*, *special*, and *night* visits. By an ordinary one is meant a visit paid after the message requesting it, and providing that message was left at the surgeon's residence not later than ten o'clock in the morning. By a special visit is meant one paid in consequence of the message not being left at the surgeon's until after 10 A.M., and not later than 5 P.M., thus requiring frequently the medical officer to retrace his steps to see a club-patient after he comes home from his daily rounds, because such patient, to suit his own convenience, did not let the surgeon know he was wanted till mid-day, waiting perhaps for a neighbour who might be going through the village where the doctor lived, to call and say Mr. So and So was ill, in many cases "very bad," and the doctor must come directly, instead of sending a messenger on purpose in time to be at the surgery before the doctor left for his daily work. By a night-visit is meant one paid in answer to a message left at the surgery at or after five in the evening, and before ten next morning, requiring immediate attention. Of course, I am only speaking now of first visits by request of patients, not a visit paid late in the day, to suit the surgeon's own convenience. If necessary to see a patient twice daily, the second visit to be half-a-crown extra, or if patient alters for the worse, and it is necessary for such a one to be seen in the night, then certainly five shillings is not too much for the surgeon's night-visit. If something in addition to the ordinary fee for general attendance and medicines had to be paid for each first visit, as stated above, it would compel members to be more cautious how (to save themselves one iota of trouble) they indiscriminately send for the medical officer just when they pleased, whether there was occasion for immediate attention or not. If club members had to pay for their first visit they would frequently find they could walk to the doctor to have a wound dressed, or obtain advice or medicines, as well as trouble him to come to them; in fact, medical officers to benefit societies would be protected from the whims and fancies of certain members thereof, who fancy, because they have paid their half-crown, often less, seldom more, for their attendance for the year, that they are entitled to fetch the doctor at any moment for every little ailment they may think requires attention. The surgeon to a club is to the members little better than a flunky, and there are not a few members who thus look upon him, and is it to be wondered at when medical men take medical contracts at the present ruinous and degrading rate of payments for *professional* services? I believe the following tariff of charges to be a fair one:—

	s.	d.
For general attendance and medicines for each member per annum	5	0
First ordinary visit, including signing a certificate to go on the club and another to go off	1	0
First special visit and certificate, &c.	2	6
First night-visit and certificate, &c.	5	0

Patients who, to suit their own convenience, will call at the surgery after consultation hours to pay one shilling; teeth extracted, one shilling during surgery hours, eighteenpence afterwards; passing a catheter, half-a-crown; bandaging broken ribs, ten shillings; treating fractured collar-bone, one pound; reducing dislocation of fingers, ten shillings; amputating a finger or toe, one pound. The capital operations to be charged for in accordance with the scale of payment allowed by the Poor-law Board to their Medical Officers. Bottles, bandages, splints, leeches, and cod-liver oil, to be found by patients themselves. With regard to examination by the surgeon, and the report as to state of health of candidate for admission, as member of a benefit society, we are fully aware, in the majority of cases, that such report is given gratis, it ought not be; a fee of certainly no less than half-a-crown ought to be charged in all cases, if made at the, and during, surgery hours; if after, or at candidate's house, five shillings is none too much for making such examination and writing the requisite certificate. If clubs paid their surgeons after the above rate, the members would find themselves much better off than they now are in the long run, and there would be much more friendly feeling existing between doctor and patient than at the present time, for it stands to sense and reason, that as things now are, the doctor thinks how little he need do for his money, the patient how much he can get for his; a very satisfactory state of affairs for the patient, as club patients frequently think that the doctor does not come often enough to see them, and, it is a well-known fact, they require more attention than a private patient. The above tariff of club-payments is certainly a good one, but I fancy medical men would do better for themselves, and that the patient would experience more satisfaction if contracts were made, not in the lump as above, but after the rate of so much for each visit, according to time of such visit, and have all medicines found by a chemist (if a chemist could be found to contract for medicine for the year); pay a medical man for what he really does, whether it be much or little, not get him to take so much at the risk of having but little to do as the rule now is. Suppose a club agreed to pay their surgeon 1s. per head per annum as a retaining fee for general advice, and then allow him 1s. for each ordinary visit; 2s. 6d. special; and 5s. night, ditto. The rules with regard to attendance at the surgery and operations to be charged for as stated above. Let club-surgeons remember, if they make any alteration with regard to payments, they may as well have a good and just scale of remuneration, as be content with the rise of 1s., or more, as the case may be, in addition to their present pay per head. Let club-surgeons bear in mind, and club-members too, that "the labourer is worthy of his hire."—I am, sir, yours, &c.,

HENRY W. WILLIAMS, M.D.

168, Fulham-road, S.W.

THE BRITISH LYING-IN HOSPITAL AND THE LADIES' MEDICAL COLLEGE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am obliged to trouble you with a few facts in relation to your editorial comments at page 195.

1. The "merits or demerits of the Female Medical College" were not introduced by me, and I have no wish to follow further what is, as you rightly say, irrelevant to the matters asserted by Dr. Eastlake.

2. The fact, that having examined the prospectuses and reports, you are "by no means disposed to condemn the principle upon which the college was founded" is a very mild expression for the conclusion to which all honourable men in the profession will come on due inquiry, and to which a very large number have already come, and upon which a considerable number have practically acted, by entering their daughters and relatives as students at the college. I find that the last two entries were sisters of a well-known medical practitioner in Ireland, and I have by this very post received a letter from him, containing warm expressions of thanks for my share in organizing the arrangements of which those ladies have availed themselves.

3. "Sneering allusions to man-midwives" have not, so far as I know, been circulated by the Female Medical Society or any of its officers. If otherwise, I shall thank you to point out the instances.

I have myself used the term "man-midwife," but not "sneeringly." I prefer Saxon to bastard French, and do not know that the English language provides those gentlemen with any other designation. I need not remind your readers that the word "man-midwife" has but recently been superseded upon the brass-plate by the euphuistic term "accoucheur," and that many eminent obstetricians now living, have gloried in the designation "physician man-midwife." The *Athenæum* of September 28th, 1867, in a long and interesting article upon this subject, which all medical men should read, selects the term "man-midwifery;" and Dr. John Brown, Lord Rector's Assessor to the University of Edinburgh, at page 26 of the introduction to his classical work "Horæ Subsecivæ Lock and Sydenham" (1866 edition), also selects this term, and uses it with a freedom more open to objection from "people of over-nice minds but nasty ideas" than any use to which I have ever put this homely and significant bit of saxon. The passage is worth quoting. He says:—

"There is one subject which may seem an odd one for a miscellaneous book like this, but one in which I have long felt a deep and deepening concern. To be brief and plain I

refer to 'man-midwifery,' in all its relations, professional, social, statistical, and moral. I have no space now to go into these fully. I may, if some one better able does not speak out, on some future occasion, try to make it plain, from reason and experience, that the management by accoucheurs, as they are called, of natural labour, has been a greater evil than a good, and that we have little to thank the grand monarque, for, in this, as in many other things, when, to conceal the shame of the gentle La Vallière, he sent for M. Chison instead of the customary *sage-femme*.

"Any husband or wife, any father or mother, who will look at this matter plainly, may see what an inlet there is here to possible mischief, to certain unseemliness, and worse. Nature tells us, with her own voice, what is fitting in these cases, and nothing but the omnipotence of custom, or the urgent cry of peril, terror, and agony, what Luther calls *miserrima miseria*, would make her ask for the presence of a man on such an occasion, when she hides herself and is in travail. And, as in all such cases, the evil reacts on the men as a special class, and on the profession itself.

"It is not of grave moral delinquencies I speak, and the higher crimes in this region; it is of affront to nature, and of the revenge which she always takes on both parties who actively or passively disobey her. Some of my best and most valued friends are honoured members of this branch, but I believe all the real good they can do, and the real evils they can prevent in such cases would be attained if, instead of attending—to their own ludicrous loss of time, health, sleep, and temper, some two hundred cases of delivery every year, the immense majority of which are natural and require no interference, but have, nevertheless, wasted not a little of their life, their patience, and their understanding—they had, as I would always have them do, and as any well-educated resolute doctor of medicine ought to be able to do, confined themselves to giving their advice and assistance to the midwife when she needed it.

"I know much may be said against this—ignorance of midwives, dreadful effects of this, &c., but to all this I answer, take pains to educate carefully and to pay well, and treat well these women, and you may safely regulate ulterior means by the ordinary general laws of surgical and medical therapeutics. Thus, instead of a man in general practice, and a man, it may be, with an area of forty miles for his beat, sitting for hours at the bedside of a healthy woman, his other patients meanwhile doing the best or the worst they can, and it may be, as not unfrequently happens, two or more labours going on at once; and instead of a timid, ignorant, trusting woman, to whom her Maker has given enough of sorrow, and of whom Shakespeare's *Constance* is the type, when she says, 'I am sick and capable of fears, I am full of fears, subject to fears; I am a woman, and therefore naturally born to fears'—being in this hour of her agony and apprehension, subjected to the artificial misery of fearing the doctor may be too late, she might have the absolute security and womanly hand and heart of one of her own sex.

"This subject might be argued upon statistical grounds and others, but I peril it chiefly on the whole system being unnatural. Therefore, for the sake of those who have borne and carried us, and whom we bind ourselves to love and cherish, to comfort and honour, and who suffer so much that is inevitable from the primal curse, for its own sake, let the profession look into this entire subject in all its bearings, honestly, fearlessly, and at once. Child-bearing is a process of health, the exceptions are few indeed, and would, I believe, be fewer if we doctors would let well alone."

Having disclaimed for the Female Medical Society—my medical colleagues and myself—all disrespectful allusions to the Medical Profession, I yet hold that it has not hitherto done its duty in the education of midwives, and that such conduct as that lately exhibited by the *British Medical Journal* and the *Medical Times* must be disowned before it can come into Court with clean hands as a complainant.

I have always held that all barriers excluding women from any branch of medical practice, or indeed from any other field of labour, should be removed, but that it is actually desirable and necessary for the public welfare that proper facilities should be organised for educating, examining, and licensing midwives, and that the best possible teaching in the science of obstetrics and all the accessory branches of medicine should be made accessible to educated women in a school apart from male students. *I have never proposed to exclude men from the practice of midwifery, but only to prevent men from excluding women*, as practically they have for a long time succeeded in doing by preventing them from being properly educated.

The Female Medical Society has never "catered to the petty prejudices of strong-minded women." It has, in fact, incurred a spiteful enmity in certain quarters by its persistent refusal to commit its organization to extreme or impracticable views (*vide* Social Science, Sep. 20, 1867). "The suspicion with which the operations of this institution has been regarded by the profession" is not due to any action on the part of its friends or promoters; it is in fact due solely to the mischievous activity and silly notions of such medical persons as those who have exhibited themselves in the recent conduct of the *British Medical Journal* and *Medical Times*.

Of course the medical profession would not countenance these miserable mischief-makers, but so few of us know *in propria personâ*, the creatures who pull the wires of this kind of machinery, that we unconsciously allow our minds to be prejudiced or misled by what appears in anonymous print from men to whose opinions, if otherwise expressed, we should pay no attention whatever; and nothing, sir, could illustrate this better than the fact that a professional man of your experience has just been duped by these two precious journals.

4. As you point out, "that which Dr. Edmunds designates an 'impudent falsehood,' is not only specifically stated, but vehemently reiterated by Dr. Eastlake." As Dr. Eastlake's attack upon the hospital, and upon the two defenceless women has recoiled upon himself, I have no wish to gibbet his conduct in further detail in your pages. I will merely state that I never saw Dr. Eastlake before I subscribed to the hospital, and had no sort of personal feeling against him, and no wish that he should be disturbed in his post as physician. He has in fact brought all this trouble and disgrace upon himself by a series of actions, every one of which has been "not only a crime but a blunder."

If any readers are not satisfied as to whether the veracity is on the side of the Board of Management or of Dr. Eastlake, I shall be happy to send them a full report of the special general meeting from the London *Mirror* of the 22nd inst., together with printed copies of other documents As to the charge of "packing," the *fact* that the resolutions were carried *unanimously* at the general meeting of governors shows that we had no necessity for such an expedient. Dr. Eastlake did try to do it at the last moment, but was defeated in the attempt.—I have the honour to be, sir, your obedient servant,

JAMES EDMUNDS, M.D.

4, Fitzroy-square, London, W.
Feb. 27th, 1868.

P.S.—I have just been told by a mutual friend fresh from Wimpole-street, that the Editor of the *British Medical Journal* not knowing how to wind up this matter, has hit upon the expedient of getting up a requisition for a special general meeting of the metropolitan branch, ostensibly "to take into consideration the treatment which Dr. Eastlake has received at the hands of the Governors of the British Lying-in Hospital," but really to rid himself of his embarrassment. In order, as I suppose, to keep up the unity of the plot this forthcoming meeting is put forward in the journal as a reason for continuing to suppress my reply as a governor of the hospital and member of its board of management, and I infer that the knowing editor in his superior wisdom thinks that the objects of that meeting could not be accomplished if both sides of the question were placed before the members of the association.

I hope that the reporters of the general press will not be admitted, as then, if the meeting makes the association ridiculous the reports can be quietly burked and no harm will come of it. If, however, as I am told, this is a first attempt to erect the British Medical Association into a trade's union combination for intervening between medical men and their employers, I regret that Dr. Eastlake should have been selected as the type of a medical martyr, and that a hasty meeting of the profession should be exposed to the risk of committing itself to the support of an attack to which they have not heard the reply, and upon which it seems bad generalship to base the consideration of a principle so wide and important. Attached to the "requisition" are, of course, several names which we all respect and hope to continue to respect, but those gentlemen do not know that their signatures are followed by that of another who, as one of the valiant cohort with which Dr. Eastlake attempted to pack the Governors' special general meeting, tried to force his way in on the assertion that he had paid his governorship qualification into the hospital account at the bank "last week." With much regret, and some hesitation, the scrutineer at the door, after much discussion, directed the police guard to resist his entry by force, and this medical gen

tlemen with others walked up and down the outer hall arranging to "hound that fellow Edmunds out of the profession," an object which a "midwife" who stood by to identify the persons of the governors, told them would be the greatest kindness they could do to him if *they* were fair representatives of it. The secretary of the hospital has since carefully examined the account at the bank, and finds that this medical gentleman (save the mark) had made no payment whatever. I deeply regret to have to make this statement, but to shrink from it would be to neglect my duty to the profession, and I am prepared to point out the name if necessary.

I shall be thankful for the support and sympathy, or advice and criticism of my professional brethren in regard to the work I am trying to help on.

The reference in my last letter to "the *British Medical Journal*, Vol. II., 1864," should have been 1865, Vol. II., pages 434, 463, and 510. J. E.

STAMPING OUT SMALL-POX.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The subject matter of this communication in its bearing upon a recent pamphlet[1], from the pen of Sir James Simpson, may render necessary an apology from so obscure an individual as myself, for what might otherwise be deemed an unwarrantable obtrusion; but, as the remarks I have to offer stand associated with a due regard for the high scientific and professional position of the writer of the pamphlet, I trust they will not be considered either impertinent or irrelevant. It is simply with the postulate of the argument upon which the practical details are based, that I have to do. In a sanitary point of view, the entire paper must commend itself to the judgment of the profession at large.

The article to which I refer is headed, "Proposal to Stamp out Small-pox," &c., and in it there occurs the following paragraph:—

"Let it be premised that small-pox is like scarlet fever, measles, and whooping-cough—only a species of disease which, as a general law, attacks once in a lifetime, and is only propagated from an infected individual to a susceptible individual by a specific poison generated in the course of the malady, and transmitted from the affected to the healthy—first by the near approach of the one to the other, &c. We would no more expect this known species of disease or poison to originate *de novo* at the present day, under any combination of circumstances, than we would expect a known species of animal or plant—as a dog, or a hawthorn—to spring up *de novo*, and without antecedent parentage."

Again, "The public mind has, during the last two or three years, become familiarised with the idea of '*stamping out*' a disease, in the instance of rinderpest—a malady apparently spreading in this country, only as small-pox does by contagion; and every one well knows the perfect success with which this affection has been lately stamped out in England, while it has also, by due care, been prevented spreading to Ireland, and the Isle of Man. I believe the same principle of stamping out could be as successfully applied to the extirpation of small-pox among us, as it has been applied to the extirpation of rinderpest."

The precise meaning of the above is made perfectly clear by the following, in the concluding paragraph:—

"My observations in the present communication refer especially to the stamping out of small-pox, for I believe it is the malady whose extirpation could thus most easily be effected. But the same principles apply, and will, I believe, be applied betimes to the analogous contagious diseases, when the science of public health is more advanced, for the study of it is yet in its infancy. Scarlatina and measles will become greatly reduced, if not extirpated, by an observance of similar rules."

Now, assuming that small-pox must be ranked with the formidable array of epidemic diseases, I think it will be pretty generally conceded, that, recurring as these do, respectively by simultaneous visitations, in districts widely separated from each other—it may be after long intervals of suspension—and without any appreciable premonition, they must be influenced in this their *primary* form, by mysterious laws, which no human foresight can altogether evade; and to promulgate a theory (under a popular designation), which ignores these laws, by a presumption that human resources may be made available for the extinction, *toto cælo*, of any one of this class of diseases, appears to be indicative of a mode of thinking in relation to the economy of the moral governor of the world, which I imagine the worthy baronet would be among the foremost to repudiate.

How far the theory to which I have ventured to take exception may be applicable to the same class of diseases, in their *secondary* or contagious characters, is a totally different question; inasmuch as we are happily provided with hygienic means of the kind suggested by Sir James for *limiting* their operation. J. BIRCHENALL, M.R.C.S.

Macclesfield.

1 Noticed in THE MEDICAL PRESS AND CIRCULAR, February 5, p. 119.

ANOTHER IMPOSTOR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Since writing last on the history of the man found drowned at Abridge, in Essex, I have been confirmed in my suspicions that there were two impostors adopting the same trick.

I might almost exclaim with King Richard—

"Methinks there be six Richmonds in the field,
Five I have slain to-day instead of him."

It is quite certain that the man who was drowned in Essex called on some medical gentlemen in the neighbourhood and represented to them that he was "Dr. Scholfield, of Pickering." He told the oft-repeated tale which had been used by Roscoe; and his age, mode of address, height, and general appearance, corresponded with the "original author of the imposture," Roscoe of Bolton.

But my letter published in your columns has revealed the fact that there is another person telling the same story and adopting the same means of obtaining money under false pretences.

I am sure that the real Dr. Scholfield, of Pickering, who is a highly respectable man, still in practice there, would be glad to know that this infamous mis-use of his name had been stopped and punished. I should gladly co-operate with any one who would assist in bringing the fellow-swindler No. 2 to justice. It seems that he is haunting London at present, for he called upon Dr. Cheadle, of Cumberland-gate, on Friday evening last.—I am, sir, yours obediently,

BAXTER LANGLEY.

50, Lincoln's-inn-Fields, W.C.
March 3rd, 1868.

Medical News.

ON Tuesday last, H.R.H. the Princess Christian made a private visit to the Hospital for Women, Soho-square, to inquire after one of her Royal Hignesses' servants, who is an inmate of that institution. Her Royal Highness visited some of the wards, and expressed her gratification at the general arrangement of the hospital, and the appearance of comfort which the wards presented.

THE Military Secretary, India Office, presents his compliments to the Editor of THE MEDICAL PRESS AND CIRCULAR, and begs to enclose a list of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination at Chelsea in August last, and who have undergone a course of instruction at the Army Medical School, together with the names of places where they have studied, and the total number of marks obtained at the examinations at Chelsea and at Netley:—A. S. Lethbridge, Aberdeen and England, 5451; A. Stephen, Aberdeen, 5386; J. J. Rathon, Ireland, 5305; J. H. Newman, Ireland, 4984; H. Johnstone, Aberdeen, 4767; W. R. Gordon, Aberdeen, 4436; J. Davidson, Aberdeen, 4388; A. S. Jayakar, London, 4291; J. F. Keith, Aberdeen, 3972; E. A. Trimnell, England, 3829; C. A. Harvey, Edinburgh and Ireland, 3543; W. Hanks, London, 3339.

THE Dublin Obstetrical Society will hold their sixth meeting for the session, in the Rotundo, on Saturday next, when the following communications will be made:—1. T. E. Beatty—Case of Fibro-cystic Tumour of the Vagina. 2. J. A. Byrne—Case of Retained Menses. 3. H. S. Halahan—On Anomalies in the Mechanism of Parturition. 4. J. Guinness Beatty—On Rigid Perineum. 5. R. W. Harley—Case of Gonorrhœal Rheumatism after Parturition.

WE hear that the little boy Abbott, who was blinded at the Clerkenwell explosion, has recovered his sight.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 18, 1868.

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Dr. LETHEBY'S SECOND LECTURE ON FOOD.

COMPARATIVE DIGESTIBILITY OF FOODS—FUNCTIONS OF DIFFERENT FOODS.

(Continued from page 219.)

And with regard to the use of *fermented liquors*, there is the same universal indication of their serving a profound physiological purpose, and supplying a common want. It is no argument that, because these things have been abused they serve no purpose in man's economy. On the contrary, the fact of their use in all time, and that no saccharine liquid, or juice of ripe fruit, can be exposed to the air without spontaneous and almost immediate fermentation, are striking evidences of a useful purpose. They may not enter into composition of tissues, but they may stimulate the energies of the living frame, and rouse them into increased activity. It is not merely the brick-work and marble, so to speak, of the human body, nor yet the concrete movements of the machine, that have to be sustained, for there are rarer forms of matter, and higher manifestations of force, concerned in man's existence; and his resort to such beverages as these, may be for something more than the nourishment of the system, or even the mere raising of his spirit above the common concerns of this work-o-day world.

That *alcohol* stimulates the action of the nervous system there is no doubt, and it is equally certain that it increases the respiratory changes. Dr. Edward Smith is of opinion that it also lessens the action of the muscles, which are subject to volition, and increases, in a certain degree, the action of those which are independent of it, as the heart and respiratory muscles. He finds, too, that it diminishes the functions of the skin, and by thus lessening the waste of animal heat, it has a conservative tendency. The effects of alcohol are, however, much modified by the substances with which it is associated in different alcoholic liquids—*beers* and *ale*, for example, act on the respiratory functions by reason of the saccharine and nitrogenous matters they contain; *wine* also, as well as *cider* and *perry*, have a similar action, and in proportion to their saccharine and acid constituents; *brandy* and *gin* lessen the respiratory changes, and the latter acts on the kidneys by reason of the volatile oil it contains; *whiskey* is uncertain in its effect on the lungs; and *rum*, like *beer* and *ale*, is a true restorative, as it sustains and increases the vital powers; and he says that the old-fashioned combination of *rum* and *milk* is the most powerful restorative with which he is acquainted.

Liebig is of opinion that alcohol is burnt or oxydised in the system, and is therefore a calorific agent; but the researches of Lallemand, Perrin, and Duray, as well as those of Dr. Edward Smith, have demonstrated that a large portion of it passes through the system unchanged, and appears in the breath and perspiration, as well as in the urine. They, therefore, conclude that alcohol is not a food, but is a mere excitor of the nervous centres. On the other hand, Dr. Thudicum, in a rather large experiment on the students of his class (33 in number), found that of the 4000 grammes of alcohol in the 44 bottles of wine, which they drank at one sitting, only 10 grammes appeared in the urine; and assuming that about 10 grammes more were exhaled by the breath and skin, he concluded that only 0·5 per cent. of the alcohol escaped unchanged. He therefore believes that alcohol is oxydised in the body, and is a true food.

But besides this, the inquiries of Poiseuille have shown that it is a physical as well as a chemical and physiological agent, for it hinders the flow of liquids in narrow tubes, and may act in the same way on the movements of the blood in the capillary vessels. He found, for example, that when the flow of a certain quantity of water through a small tube occupied 575·8 minutes, and of the serum of blood 1048·5 minutes, the flow of the same quantity of Madeira wine under the same circumstances was 1138 minutes, of sparkling Sillery 1463, and of Jamaica rum 1832. Its functions, therefore, are manifestly of a complicated nature: in fact the whole subject is remarkably obscure, and requires the light of science to illuminate it. As in the case of tea and its allies, ages of empiricism are waiting for a philosophical interpretation.

Lastly, as to the functions of *condiments*, as *peppers*, *mustard*, *spices*, &c. They are merely stimulants of the digestive organs—promoting the flow of the saliva, the gastric juice, and other intestinal secretions; and increasing the paristaltic movements of the viscera. They thus aid in the processes of digestion; and by giving flavour

to the food, they wet the appetite, and so increase the relish for it—indifferent food is thus made palateable, and its digestion accelerated.

And now, in conclusion, we may safely inquire, as a supplementary question to the functions of food, what are the mechanical and thermotic powers, as well as the fattening capabilities of various articles of diet?

Dr. Frankland has made some very careful determinations of the calorific values of different substances used as food; and remembering that every pound of water raised one degree of Fahrenheit represents a mechanical force of 772 lbs. lifted a foot high, it is easy to calculate the working energy of any substance from its thermotic power when burnt in oxygen, or when less perfectly consumed in the animal body. Arranging the results under these two heads, we shall find that the energies of different articles of diet may be thus expressed:—

ACTUAL ENERGY OF TEN GRAINS OF THE MATERIAL, IN ITS NATURAL CONDITION, WHEN COMPLETELY BURNT IN OXYGEN, AND WHEN OXYDISED INTO CARBONIC ACID, WATER, AND UREA, IN THE ANIMAL BODY.

	Per cent. of water in material.	Lbs. lifted one foot high. When burnt in oxygen.	When oxydised in the body.
Butter	15	14357	14357
Cheshire cheese	24	9187	8613
Oatmeal	15	7913	7769
Wheat flour	15	7788	7591
Pea-meal	15	7778	7456
Arrow-root	18	7731	7731
Ground rice	13	7535	7424
Yelk of egg	47	6761	6532
Lump sugar	19	6616	6616
Grape sugar	20	6476	6476
Entire egg	62	4708	4507
Bread crumb	44	4409	4246
Ham	54	3915	3317
Mackerel	71	3537	3187
Lean beef	71	3098	2818
Lean veal	71	2594	2314
Guiness' stout	88	2123	2123
Potatoes	73	2002	1969
Whiting	80	1787	1563
Bass' ale	88	1530	1530
White of egg	86	1325	1138
Milk	87	1306	1241
Carrots	86	1040	1026
Cabbage	89	858	830

It will be understood, of course, that to obtain these results in the animal body the materials must be completely absorbed, and fully oxydised into carbonic acid, urea, &c.

Estimated in this manner it may be said that a daily subsistence diet of two ounces of dry nitrogenous food, and 13·2 ounces of dry carbonaceous, calculated as starch; and a daily working diet of six ounces of dry nitrogenous matter, and twenty-six ounces of dry carbonaceous, have the following mechanical energies:—

	Lbs. lifted one foot high. When burnt in oxygen.	When oxydised in the body.
Subsistence diet ...	6,319,783	... 6,307,078
Working diet ...	13,349,405	... 13,311,290

But the actual working power of the human body does not approach this. In fact, although a man's daily labour has a very large range, as from 300,000 foot-pounds when lifting dung into a cart to 1,500,000 foot-pounds when pushing or pulling horizontally; yet, the average is not above one million foot-pounds, as will be seen from this diagram:—

Kind of labour.	Amount of work in foot-pounds.	Authority.
Brick-layer's labourer carrying bricks	1,627,200	Mayhew.
Coal whipping	1,293,600	,,
Ascending Faulhorn	1,074,931	Wislicenus.
Do. do.	938,746	Fick.
Treadmill	1,008,000	Mayhew.
Do.	861,156	Ed. Smith.
Turning a winch	837,760	Coulomb
Pedestrians (20 miles a-day)	792,000	Haughton.
Paving and pile-driving	788,480	Coulomb.
Porters carrying loads	732,480	,,
Shot-drill punishment	694,400	Haughton.
Average	967,614	

And even when we add the calculated internal work of a man's body, as the beating of the heart and the movements of respiration, the total of it does not much exceed a million and a-half foot-pounds a-day.

External work or actual labour ...	967,614	foot-pounds.
Work of circulation (75 beats a minute)	497,880	,,
Work of respiration (15 a minute) ...	98,064	,,
Total ascertainable work per day ...	1,563,558	,,

It is evident, therefore, that a large portion of our food must escape digestion and absorption; indeed, the thermotic power of the food actually consumed daily, as estimated by the carbonic acid exhaled and the urea secreted, is not more than sufficient to raise the temperature of 10,000 lbs. of water one degree of Fahrenheit. This is equal to a force of 7,720,000 lbs. lifted a foot high; so that the ascertainable work of the food is about one-fifth of its actual energy, the rest of the power being consumed in molecular movements within the animal body. Helmholtz asserts that the external work should be a fifth part of the mechanical force of the digested food; but labour must be well applied to develop this proportion of its energy.

In the steam-engine, according to Sir William Armstrong, only a tenth part of the actual power of the fuel is realized as work. The human machine is therefore more economical of its force than a steam-engine; in fact it is assumed by Heidenham and others that not less than half of the force applied to the living muscles, as it is developed in their tissue, is utilized. But although the animal machine is so much more economical of force than the steam-engine, yet on account of the costliness of its fuel, &c., it is far more expensive. Taking, for example, a steam-engine of one-horse power (that is, a power of raising 33,000 lbs. a foot high per minute), it will require two horses in reality to do the same work for ten hours a day, or twenty-four men; and the cost will be 10d. for the steam-engine, 8s. 4d. for the two horses, and just £2 sterling for the twenty-four men.

Dr. Frankland has estimated the weight and cost of various articles of food required to be oxydised in the animal body in order to raise 140 lbs. (a rather small man) to the height of 10,000 feet, supposing that only one-fifth of the actual energy of the food is manifested as external work. Here is a part of his table:—

	Ounces required.	Cost. s.	d.
Oatmeal ...	20·5	0	3½
Flour ...	21·0	0	3¾
Pea-meal ...	21·4	0	4¼
Bread ...	37·5	0	4¾
Potatoes ...	81·1	0	5¼
Rice ...	21·5	0	5½
Beef-fat or dripping	8·9	0	5¾
Cheshire cheese	18·5	0	11½
Cabbage ...	192·3	1	0¼
Butter ...	11·1	1	0¾
Hard-boiled eggs	35·3	1	2½
Lump-sugar...	24·1	1	3
Milk ...	128·3	1	3½
Lean beef ...	56·5	3	6½
Guinness's stout	6¾ bottles.	5	7½
Bass's pale ale	9 do.	7	6

The motive power of fatty foods is thus shown to be far higher than that of lean meat or farinaceous substances, and this accords with experience, for the labouring classes have long since discovered that fat bacon is a good material for heavy work. Its efficacy may, in great part, depend on the ease and certainty with which it is digested and utilised in the body.

The *fattening functions* of food are liable to great variation, not merely from the quality of the food itself, but from the peculiarity of the individual consuming it. This is a matter of common observation, and is well-known to the breeders of stock. Messrs. Lawes and Gilbert found in their experiments on the feeding of bullocks, sheep, and pigs, that very different quantities of food were required to produce the same increase of weight. Oxen and sheep, for example, feeding on the same diet, namely, oil-cake, hay, and turnips, consume, in one case (that of oxen), 1109lbs. of dry substance for every 100lbs. of increase in the live weight, while in the other, the sheep consume only 912lbs.; and pigs fed on barley-meal will fatten to the same extent on 420lbs. of the dry material. Pigs, therefore, store up about one-fourth of their food, reckoned in this way; sheep about one-ninth, and oxen only one-eleventh.

The proportions of the several constituents of the food are also very differently used by these animals; for in every 100 parts of the dry food eaten, the several amounts of nitrogenous, carbonaceous, and mineral matters are thus disposed of:—

	Constituents of the dry food.	Proportions in dry food.	Proportions stored in animal.	Proportions in manure.	Proportions lost in respiration.
Oxen	Nitrogenous ..	19·66	0·8	29·1	57·3
	Carbonaceous ...	72·86	5·2		
	Mineral ...	7·48	0·2	7·4	—
		100·00	6·2	36·5	57·3
Sheep	Nitrogenous ...	19·41	0·8	25·1	60·1
	Carbonaceous ...	73·57	7·0		
	Mineral ...	7·02	0·2	6·8	—
		100·00	8·0	31·9	60·1
Pigs	Nitrogenous ...	12·38	1·7	14·3	65·7
	Carbonaceous ...	85·00	15·7		
	Mineral ...	2·62	0·2	2·4	—
		100·00	17·6	16·7	65·7

So that the power of appropriation is greatest with pigs and least with oxen; in fact, of every 100lbs. of the several constituents of the food, the following are the proportions stored up in the three classes of animals:—

	Pigs.	Sheep.	Oxen.
Of 100 Nitrogenous ...	13·5	4·2	4·1
Of 100 Carbonaceous ...	18·5	9·4	7·2
Of 100 Mineral ...	7·3	3·1	1·9

It will be noticed, too, that the proportions lost in respiration are very different in the three cases; for it is greatest in the pig—amounting to nearly 66 per cent. of all the food eaten, and least in the ox, 57·3 per cent. These proportions represent the vital work of the body during the processes of growth and repair.

The time also that is occupied in producing fat and muscular tissue is different with these animals, for the pig increases from 6 to 6·5 per cent. of its weight per week; the sheep not more than 1·75 per cent.; and the ox only 1 per cent. Some of this difference is, doubtless, due to the quality of the food made use of, for the pigs were fed on a nutritious and easily digestible diet—oat-meal; while the sheep and oxen made use of food with a large quantity of cellular tissue and woody fibre: and here, I may remark, that the power of utilizing the inferior varieties of food, is very different with different classes of animals. Man, as I have already explained, is unable to digest woody fibre, or even the harder kinds of cellulose; it is doubtful, indeed, whether he can digest cellulose at all. The pig, also, has but a limited capacity for this kind of work; whereas, oxen and sheep, and the herbivora generally, can eat woody tissues with advantage, and convert them into flesh and fat. In eating meat, therefore, we are utilising the digestive powers of other animals; are and in fact, employing their stomachs to do for us that which we could not do for ourselves. This, as Mr. Lawes says, is proved not merely by the testimony of common experience, but also by certain anatomical facts relating to the structure and comparative size of the stomach in different animals; in oxen, for example, the stomach weighs 51 ounces for every 100 lbs. of live weight; in sheep it weighs 39 ounces; in pigs 14 ounces; and in man only 6 ounces. It is manifest, therefore, that the food of man should be more concentrated than that of the lower animal; and that he acts wisely in eating flesh and fat, which are the very essence of food, for he thereby economises labour, and employs the assimilative powers of other creatures to bring the crudest materials into a nutritious and highly digestible form. It is true that man, in common with other animals, is able to convert starch and sugar into fat, and the lower qualities of albumen into flesh, but by so doing he expends force, for in the case of fat he locks up in it twice and a half the potential energy of starch and sugar.

Looking broadly, therefore, at the functions of food, and regarding the animal body as a machine in which potential energy is rendered active, it would appear that its main duty is to develop force by the oxydation of carbo-hydrogens contained in the blood, and not by the oxydation of tissue. A portion of tissue no doubt decays in the transference of its energies to other forms of action, and requires repair; but the decay is scarcely more rapid at one time than another, and is, in no case, when sufficient food is supplied, the cause of mechanical labour. "In man," says Dr. Frankland, "the chief materials for muscular power are non-nitrogenous; but nitrogenous matter can also be employed for the same purpose, and hence the greatly increased evolution of nitrogen under the influence of a flesh diet, even with no increase of muscular exertion. The non-nitrogenous matters, also, which find their way into the blood, yield up all their *potential* energy as *actual* energy; whereas the nitrogenous in leaving the body as urea carry with them a portion (at least one-seventh) of their potential energy unexpended. The transference of potential energy into muscular power is necessarily accompanied by the production of heat within the body, even when the muscular power is exerted externally. This is, doubtless, the chief, and probably the only source of animal heat."

LECTURES ON VENEREAL DISEASES

DELIVERED IN

DR. STEEVENS' HOSPITAL.

LECTURE III.

By ROBERT McDONNELL, M.D., F.R.S.,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

GENTLEMEN,—If you will allow me, I shall commence to-day's lecture by an anecdote: the case alluded to is one which illustrates remarkably well many of the phases connected with the evolution of syphilis, to which I wish to direct your attention.

About two years ago, upon entering my own house, I was informed that there was a person waiting to see me. I found an individual with whose appearance I was quite familiar, although his name had escaped me. For the moment I did not doubt that he had been one of my former pupils, who had undergone that remarkable metamorphosis, which the medical student undergoes after having been in the military or naval service, or abroad in our colonies for some years; than which the transformation of the tadpole into a frog, or a catterpillar into a butterfly, is hardly more remarkable. I shook hands with him in a friendly way, and taking him by the arm, begged of him to walk into my study along with me. I observed that there was something stiff and formal in his manner, as he said to me—"Sir, I have called on you to thank

you for your kindness to me." I said, interrupting him, "Come along with me into my study;" as we entered the room, he repeated, "I have taken the liberty of calling upon you to thank you for your kindness to me some years ago, when I was *an inmate of the Mountjoy Convict Prison.*" You can easily suppose that I was rather surprised to find myself on such friendly terms with such a person. "Oh! indeed," I said, somewhat taken aback, and almost instinctively retreating a step or two—"Yes, yes, I now remember perfectly all about the circumstances of your case. Where have you been lately?" I asked with come confusion. He informed me that some weeks before, he had got his discharge from the Convict Prison on Spike Island, on the expiration of his sentence.

Let me now turn, gentlemen, to this man's case, as noted by me some years before. In 1857, A. B. came under my observation in the Mountjoy Convict Prison. He at that time had a chancre on the prepuce with marked induration. I learned that it had not appeared until some days after his committal to prison, and that at the time when I saw it there had been no treatment of any kind. This was on the fourth day after he had noticed the sore. He had congenital phymosis; on the following morning I performed circumcision, removing the sore entirely. At this time I could not discover anything more than a very trifling glandular enlargement in the left groin. The wound healed kindly, but as it healed a constellation of glands appeared in each groin. Fifty-two days after the operation he came before me, suffering, as he thought, from a severe cold; the skin was hot, pulse quick, he complained of general lassitude and mental depression, with headache and pain in the back. He was ordered diaphoretics and warm baths. Four days later a roseolar eruption declared itself, mucous tubercles appeared in the throat and fauces, and he was disturbed at night by rheumatic pains. The eruption came out chiefly upon the chest, and abdomen, and slightly on the arms; the glands in the neck became enlarged, but not to a very considerable extent. He was treated with sarsaparilla, senna, Dover's powder at night, warm baths and iodine. The eruption disappeared in three weeks. At the end of 52 days from the appearance of the first eruption, a second crop made its appearance—this time papular in form, intermixed with pustules. This eruption was remarkably symmetrical in character, and occurred on the face, shoulders, back of the arms, and fore-arms, very slightly on the trunk, thickly on the outside of the thighs and legs. The throat was very sore, the right tonsil ulcerated. This disappeared also, yielding to non-specific treatment. His hair fell out, and although the eruption on the scalp was very slightly marked, the engorgement of the glands in the neck was more considerable than at first. Three months from the appearance of this second eruption, and while the copper-coloured stains were still to be remarked on the surface of the body, a third and slighter crop of the papular kind made its appearance upon the same parts of the body. This, likewise, yielded readily to a non-specific treatment. Five weeks later a fourth crop, of a still milder kind, appeared over the same parts; no glands suppurated, no iritis supervened. He regained his health, and at the end of twelve months passed from under my notice to reappear in the manner I have described, after a lapse of eight years. I naturally inquired whether he had had any further symptoms referable to venereal disease. He told me "no," that he had been in the enjoyment of very good health, and he repeated to me, in a very respectful manner, that as he was about to leave this country, he had taken the liberty of calling upon me to thank me for my attention to him, before he started for America, where he intended to commence a new life. Now, gentlemen, by an accident I have been able to follow this case even further. This individual has since married, and is now the father, I am assured, of a perfectly healthy child, six months old. We have here a typical case in which chancre was destroyed at a very early period, yet constitutional syphilis followed, ushered in after a time by the usual prodromata, presenting most of the characters of a well-marked case of rather severe syphilis, and recurring in the eruptive form four times; yet, as far as we can judge, undergoing a complete cure without any mercurial treatment whatever. It would be quite useless for me to enter into any detail of all the other cases which, under similar circumstances, I have seen undergoing cure without specific treatment, where I was absolutely certain that there could not be present any disturbing influences. In the treatment of ordinary patients, it is, I assure you, very difficult to be quite certain that directions are fully carried out. I recollect myself pointing out with considerable satisfaction, a case of syphilis which was cured, as I supposed, without the administration of mercury; yet I afterwards found that this individual, who was an hospital patient, had taken a share of the mercurial pills ordered for another person. On the other hand, Diday gives an amusing case in which he himself having prescribed mercurial treatment, discovered, long afterwards, the boxes of pills untouched in the drawer of his patient's dressing-table; yet his patient was cured, and, as he says, remained cured for more than nine years without any mercurial treatment.

In a prison conducted on what is known as the "cellular system" no such sources of error can exist. We have perfect scientific precision in watching our cases.

The following is the description given in the report of the Venereal Committee of constitutional effects of syphilis:—

"The constitutional manifestations of syphilis follow the primary sore at an uncertain interval of time, ranging from four to ten weeks; the average term being about six weeks. Its first indication consists in a sense of chilliness, followed by heat of skin, accelerated pulse, general lassitude and mental depression. These symptoms are accompanied by pains in the limbs, and especially in the joints, often of a severe rheumatic character. In the course of two days or more the skin upon the chest, back, abdomen, and arms, occasionally in severe cases over the whole surface of the body, exhibits, on examination, some form of eruption, most commonly of an erythematous or roseolar character of a pale pink colour. Such eruption terminates in copper-coloured patches.

"If the disease be severe, well-developed papules, vesicles, and pustules may appear over the back and head, intermingled with, or following the rash. The pulse continues frequent. The throat exhibits a florid discolouration, which involves the tonsils and the neighbouring parts of the soft palate. Of the condition of the throat, the subject may remain for a time unconscious. This stage of the disease, which continues for some days stationary, may be preceded, accompanied, or succeeded by enlargement of the inguinal and posterior cervical glands. The latter, however, are not always affected. These indications are accompanied by impaired health, and by loss of physical strength.

"A sense of general debility prevails, coupled with pallor of the skin, the blood being said to be deprived of a portion of its red corpuscles. The tonsils ulcerate, and exhibit either an excavated ulcer, or a plain flat surface, of a soft red flabby aspect. The hair falls off (alopecia). On the side of the tongue at a yet later date, and generally on its under surface, are formed small white ulcers, three or four in number, of about the size of a split-pea, which, on healing, leave a white and somewhat depressed cicatrix, while others appear on the soft palate and roof of the mouth, on the gums, or at the angle formed by the two jaws. Condylomata, soft mucous-like ulcerations at the angles of the mouth, nostrils, nates, and female genital organs, iritis, with its complications, and onychia frequently occur. Such are the various symptoms that mark the progress of syphilis in the majority of cases, and which may be said to belong to the acute form of the disease. There is, however, another group of symptoms not preceded by febrile derangement, and more chronic in character. To this belong psoriasis, lepra, and tubercular eruptions, honey-comb eruption of the palms of the hands, the excavated

ulcer of the tonsils, and enlargement of the testicle. All these affections are in a remarkable degree almost destitute of pain."

In severe cases these symptoms succeed each other, wave after wave, eruption after eruption, for four, five, or six outbursts, with intervening periods of bitterness. In mild cases, one, two, or perhaps three crops of slight eruptions end the affair.

That syphilis presents itself to the practitioner in forms which vary greatly in severity, that common sense and reason indicate that the treatment should vary with the severity of the complaint, these are the simple principles which I must now ask you to bear in mind. The greatest of all practical questions with reference to this formidable complaint appears to me to be—how are we to discriminate the one class from the other—how are we to separate the cases of benign from those of malignant syphilis? You may justly say to me—"You have already said that it is not possible, with anything like certainty, to diagnose the simple from the syphilitic venereal sore; to say of one sore that it will be the forerunner of constitutional syphilis—of another that it will not. You admit that this is a matter of difficulty, if not impossibility. How, then, can you hope to tell in advance whether the constitutional disease which will succeed the syphilitic sore may turn out to be mild or severe." Let me say, in reply, that you must wait patiently and watch carefully. As the gradual evolution of the complaint goes forward, you will perceive certain indications, certain circumstances with regard to your patient's age, habits, constitution, &c., which will indicate to you with considerable precision, the course the complaint is going to run, and you must adapt your treatment accordingly. But you say again—"Are we to wait and watch, looking quietly on at the evolution of this formidable malady—are we not rather to attack it at once, and by mercurial treatment in the beginning to prevent constitutional disease." Gentlemen, let us be candid. We cannot prevent the constitutional disease. On this subject the evidence brought before the Venereal Committee exhibits a marvellous unanimity. The report says:—"No treatment by mercury, whether moderately or freely administered for this purpose, can give exemption from the liability to constitutional disease." It is true that a few of the persons examined before the Venereal Committee adhered to the opinion which was so confidently put forward by the last generation of practitioners—viz., that constitutional syphilis is prevented by the mercurial treatment of the primary disease; but the error of our ancestors is easily explained. They treated all ulcers on the genitals with mercury; four out of five of these were simple sores; in four out of five no secondary disease followed or ever would have followed under any treatment, and they attributed to mercurial treatment what was in reality due to the non-infecting character of the simple sore. If, therefore, you fully recognise the fact that you cannot prevent constitutional syphilis from coming on, you will have less scruple in calmly watching the evolution of the disease, and you will be more reconciled to the issue when you know that this is the surest mode of obtaining the evidence—the all-important evidence—on which your prognosis and your treatment are to be based. I have already told you in a former lecture that Diday speaks of eight distinct and successive features which mark the progress of every syphilitic case.

1st. The contaminating cause. We have comparatively little opportunity in this country for investigating it. The method of confrontation as it has been called, the tracing home of the syphilitic affection to its source in the female, the confronting in fact of the sore on the male genitals with that of the parent sore from which it takes its origin, has borne good fruit, and been one of the most decisive methods of proving the duality of the venereal poison. Owing, however, to the uncontrolled condition of prostitution in this country, we have but rare opportunities of doing it, and for practical purposes we may set aside any evidence which we are likely to derive from this source.

2nd. The first incubation—that is to say, the period which elapses from the time of the impure contact until the moment when the sore becomes apparent, is a point upon which we can sometimes obtain precise information, and when we can, information of great importance. It may be laid down as a general rule that the longer the period of incubation, the less virulent the infection. We have already seen that considerable difference of opinion exists with reference to the duration of this period of the first incubation. In ten cases of inoculation from secondary lesions the mean incubation has been 28 days; in two cases of inoculation from primitive lesions the mean incubation has been 18 days; while Diday assigns 14 days as the mean period for incubation in the ordinary run of cases. As in gonorrhœa, so in syphilis, the longer the period of incubation the less virulent, in all probability, the nature of the virus; but in truth we cannot build much upon this with reference to our prognosis.

3rd. The primitive lesion, that is to say the chancre, and its characters have been thoroughly studied and appear to afford some important testimony. The initial lesions, unattended with much induration, may be stated, as a rule, to be the forerunners of the milder form of syphilis. The unindurated syphilitic chancres which have been described by various writers under so many names (the venerola vulgaris, the chancrous erosion, the condylomatous affection, the superficial erosion, patchy excoriation, superficial primary syphilis, the chancriform erosion), appear from the statistics of Bassereau generally to give rise to mild syphilis. Thus, from his tables, we find:—Of 170 cases of roseolar eruptions the primitive lesion was in 146 of them an erosion; in 24 of them a hard chancre.

4th. The period of the second incubation. The duration of this period has not been accurately fixed as yet—that is to say, the period over which it extends. Some authors date it from the time of the impure contact to the time when the secondary lesions declare themselves. Others date it from the day upon which the chancre is observed up to the period when those constitutional symptoms present themselves, which are about to usher in what we call the secondary lesions. The latter is probably the best definition, and can, generally speaking, be accurately defined, as we can almost always find out from the patient when it was that the sore was first noticed, and we can invariably discover the time at which the malaise and general discomfort supervenes, which is the sure indication that the constitutional symptoms are about to make their appearance. It is a remarkable fact that this period is rather longer in cases of severe syphilis, while the milder forms generally develop themselves more rapidly. Diday gives forty-seven days as the average period of the second incubation for cases of "verole faible," fifty-three days as the average period in cases of "verole forte." The mild roseolar eruption appears early, the severer forms of eruption appear later. In determining, therefore, the severity of the cases, the length of the period of the second incubation affords valuable evidence.

5th. The prodromata. Under this head are placed the anomalous symptoms which usher in the first outbreak of constitutional symptoms—headache, rheumatic pains, or, as they are called, osteocopic (ὀστεον a bone, and κοπος, fatigue, bone-ache), syphilitic chlorosis, depression of spirits, tendency to rigor and general discomfort. It is quite certain that, as in many other eruptive affections, these general symptoms may sometimes be very aggravated, and yet the parturient mountain gave birth but to a mouse. Severe prodromata are by no means necessarily the forerunners of severe syphilis.

6th. The first outbreak of constitutional symptoms is, as Diday expresses it, the true touchstone of the intensity of the syphilitic infection. This outbreak shows itself in the mucous membranes or the external integument, very generally first upon the scalp in the form of the corona veneris. Fortunately, the benign forms are the most frequent. More than one-half are of the roseolar variety,

something like 25 per cent. belong to the papular, while the scaly, vesicular, and pustular are of much rarer occurrence. These syphilitic eruptions or syphilides, as they are called, are after all most important indications of the severity of the syphilitic intoxication. I believe it is rarely necessary to have recourse to specific treatment for the roseolar form of the disease, very rarely indeed in persons under thirty years of age, and I should venture to say never when we find that the second crop of eruption which may follow some weeks later is not of a severer kind than the first.

7th. The glandular affections, technically called adenopathia. To this group belong the glandular affections, which appear in the lymphatic glands throughout the body, first in the groin, afterwards in the neck, sometimes in the axilla.

These, generally speaking, have little tendency to suppurate unless called into action by some cause which may be regarded as extra syphilitic, as a scrofulous diathesis, the occurrence of erisypelas, or local irritation of some kind. In the milder cases these glandular engorgements gradually become dissipated. When they suppurate from local causes, they form a very troublesome complication, and frequently necessitate a specific treatment.

(To be continued.)

Original Communication.

ON THE OPERATION FOR STRABISMUS AND ITS AFTER TREATMENT.

By J. G. HILDIGE, F.R.C.S.I.

NOTWITHSTANDING the almost mathematical accuracy with which the operation for strabismus has been treated of by German and English surgeons, it occasionally happens, no matter how carefully the operation may have been performed, that the degree of parallelism resulting from it is far from satisfactory, the eye either returning to its former position or tending to wander in the opposite direction. A secondary operation[1] is just as liable to be attended with similar results, besides being in no small degree irksome to both patient and surgeon. Having experienced this in my own practice I have long been anxious to discover a means of obviating it, and I now propose to describe, as briefly as possible, a mode of treatment which has lately suggested itself to me, and which I have found to be attended with most excellent results. It consists in drawing with an extremely fine point of nitrate of silver perpendicular lines of about one-fourth of an inch in length between the angle of the eye and the margin of the cornea, on the side of the eyeball opposite to that towards which the eye tends to wander. For instance, if the internal rectus be the muscle which has been detached (strabismus convergens), and if the eye some time after the operation shows a disposition to return to its former position, I draw the lines, two at the utmost on the conjunctiva, between the external angle of the eye, and the margin of the cornea ; on the other hand, if the eye wanders too much outwards after the detachment of the muscle and does not become parallel with the other eye after the expiration of the period allowed for the subsequent contraction of the wound, the lines are drawn on the nasal side of the eyeball, and in the same position as on the opposite side.

In order to explain more fully this mode of treatment I shall give the details of one or two cases to which it has been applied with the best possible result.

Case 1.—Miss de M——, æt. 10, of Kilkenny, was operated on by me for strabismus comergens in the month of May, 1866. The affection had come on shortly after birth ; the child's mother, however, did not remember the exact period when it was first observed. The right eye was turned inwards to the extent of about two lines, and its vision had become impaired from disuse. I operated on both eyes at the same time, detaching the muscles to such an extent as to allow about one-quarter of a line for the subsequent contraction of the wound. At the end of a week the left eye had become nearly straight, but the right one had become more divergent, so as to form an external strabismus of about one line and a-half.

As there was now little or no probability of the contraction of the wound acting to any extent on the position of the eye-ball, I determined to make a trial of the nitrate of silver. I drew one or two lines with an extremely fine point of nitrate of silver, midway between the internal angle of the right eye and the margin of the cornea, and directed the patient to be kept in a darkened room, with cold applications to the eye. On the following day there was a marked improvement in the position of the eye, and it was only necessary to repeat once more the application of the caustic, when the eyes became perfectly parallel, and remained so. I saw this young lady about four months afterwards, when, to use her mother's words, no person would have known she had ever squinted.

Case 2.—Miss H., æt. 12, of Rathgar, was operated on for strabismus convergens on the 22nd of May, 1867. Her eyes became parallel about ten days after the operation, and shortly afterwards she was allowed to return to her daily avocation.

Three weeks elapsed before she again presented herself, when I found, on examining her, that her left eye had returned to very nearly the same position as it had occupied previous to the operation—that is to say, turned inwards to the extent of about one line and a half. She stated that she had been using her eyes pretty freely since I had seen her, and that her left eye had gradually commenced to squint again. I drew one line between the external angle of the eye and the margin of the cornea, and gave her the usual directions to abstain from using it, and to remain as much as possible in a darkened room for a few days. At the end of two days the eye had altered its position to the extent of one line, and, as well as I remember, it was not necessary to use the caustic a second time, as the eye became perfectly parallel, and remains so to this day.

I have treated other cases of failure of the operation for strabismus by this method, and my experience of it has convinced me that if it be resorted to within a short period after the operation, and if there be no incongruence of the retina present, it is almost certain (humanly speaking) to be attended with success. With regard to its mode of action, I am disposed to think that it is not wholly mechanical ; in fact, that the psychical element, as it is denominated by our German brethren, is brought more or less into play ; be that as it may, it has the advantage of being a simple and—according to my experience—a most effectual remedy, and unattended with any risk whatsoever.

[1] I include the different kinds of conjunctival sutures under this head.

Hospital Report.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Cases under the care of Mr. PORTER.

A LARGE ULCER OF THE ARM, CAUSED BY A BURN: AMPUTATION.

WE visited the Meath Hospital on Monday, the 9th inst., where, through the kindness of Mr. Porter, we were present at an amputation of the arm performed by him. The patient, a female aged fifty-six years, had, seventeen months previously, been burned by falling against a grate whilst baking bread. The burn extended from a point three inches above the left wrist, to two inches above the elbow-joint, and had destroyed the skin and areolar tissue. A large, weak, flabby ulcer resulted, but this had, under treatment, healed to the extent of leaving an ulcerated sur-

face three inches below, and one inch and a half above the joint, every aspect of the articulation being in a state of ulceration. She suffered intense pain, and lost her rest. The sore discharged profusely, and she was greatly emaciated by nocturnal perspirations, and occasional attacks of diarrhœa. The obstinate nature of the ulcer, and the rapid failing of the woman's strength made Mr. Porter decide upon removing the source of irritation. The patient having been thoroughly placed under the influence of chloroform, and the axillary artery having been compressed by a colleague, Mr. Porter cut an anterior and posterior flap by transfixing the arm about one inch above its centre. He then rapidly carried the knife round the bone, and immediately sawed it through. The severing of the limb was completed in sixty seconds. Mr. Porter secured all the vessels by ligature, and a very neat stump resulted when the flaps were brought together by silver wire sutures. Mr. Porter remarked to the class, that the patient on whom he had operated gave them a forcible example of a *remote* source of danger from a severe burn. She had escaped from shock, irritative fever, hæmorrhage, tetanus, and was then sinking quickly from hectic. He pointed out the advantage of amputation in this case, as giving the patient the best chance by removing the cause of the wasting fever from which she was failing.

LIPOMA TESTIS: "SYME'S OPERATION."

We also saw a very interesting case of lipoma of the left testis, on which Mr. Porter had operated. The patient, aged twenty-eight years, had been admitted under Mr. Porter's care, suffering from a fungus growth the size of a small hen's egg, protruding through the left side of his scrotum. The case displayed all the characteristic signs of lipoma, without any of those attendant upon malignant disease. The man imagined that it had arisen from an injury to the left testicle, inflicted by a trochar during the operation of tapping a hydrocele. Mr. Porter pared the edges of the aperture in the scrotum through which the unravelled structure of the testis had protruded. He then forced the testicle back, and brought the pared edges together with three pins, and twisted sutures. Mr. Porter pointed out the excellence of Mr. Syme's operation in these cases, by which the gland is saved, instead of the former practice of shaving off, or burning down the fungus with caustics. He also described the leading features in the diagnosis between this affection and malignant disease of the testicle.

FIBROID PHTHISIS.

THIS subject was brought forward at the Clinical Society of London by Dr. Andrew Clark, who read the following case:—

General Summary.—A woman, æt. 28, four years married, childless, sprung from healthy parents, said to have been temperate, and to have enjoyed good health till three years before, when she had ascites, from which she recovered in eleven months, began, in July, 1867, to suffer from vomiting, prostration, cough, occasional hæmoptysis, muco-purulent expectoration, containing lung tissue, œdema of extremities, and intermitting diarrhœa, and becoming rapidly worse, died comatose on the 5th December of same year. Post-mortem examination revealed, as had been predicted during life, fibroid disease of left lung, with dilated bronchi, cheesy deposits, and cavities arising from their disintegration; enlargement (and waxy degeneration) of liver; granular contraction (and some waxy change) of kidneys; ulceration of the bowels; enlargement of mesenteric glands; and fibroid degeneration of, or deposit in, other organs and tissues.

State on Admission.—Patient greatly emaciated, reclines on her back, and takes little notice. Pupils dilated and sluggish. Is drowsy, but sleepless. Answers questions with difficulty, but as it seems correctly.

Teg. Org.—Skin dusky, yellowish, dry, rough; white patches here and there. Hair dark, scanty, coarse. Fingers clubbed. Temp. in axilla 97·4.

Dig. Org.—Teeth decayed, yellow: sordes. Tongue dry, red, and cracked; thirst, vomiting; flatulence; diarrhœa, preceded by griping pains. Hepatic dulness, greatly increased downwards and to left. No increase of splenic dulness.

Genito-urin. Org.—Menstruated two months ago. Slight leucorrhœa. Urine deficient in quantity, pale, acid, of a density of 1012, and containing a tenth of its bulk of albumen. Scanty deposit, exhibiting granular matter and small hyaline casts.

Resp. Org.—On account of weakness of patient, front and lateral parts of chest alone examined. Respirations 20 per minute, and chiefly abdominal.

Examin. of Left Side.—Front depressed and movement slight. Supra-clavicular region percussion tympanitic; breath sounds blowing: resonance broncophonic, with echo. From second to fifth rib, and from near sternum to posterior part of axillary region, hard resistant dulness, with considerable retraction of chest-wall. In front of this region, inspiration bronchial, and accompanied by moist subcrepitant râles; expiration dry, and not sensibly prolonged. In axillary region breath sounds tubular, and partly masked by coarse crepitation; vocal resonance broncophonic. At two spots breathing cavernous and voice pectoriloquous; here metallic click is heard coincident with heart's contractions. Along posterior axillary line an occasional creaking-leather sound is heard and vocal fremitus and vocal resonance are notably diminished. Over lower part of lung, inspiratory murmur harsh; and expiratory murmur, which in its first half is blowing, terminates only after apparent cessation of movements of thoracic walls by a few gentle puffs. A fine dry crepitation is developed by forced inspiration. Ultimately in this region there were uniform dulness, tubular breathing, and broncophony.

Examin. of Right Lung.—Percussion over anterior third tympanitic; elsewhere normal. Inspiratory murmur harsh and divided; expiratory prolonged, blowing, and accompanied by sibilant ronchi; vocal resonance increased.

No distress of breathing. Cough infrequent, but paroxysmal, and ending in vomiting. Expectoration occurs at close of paroxysms. Sputum mucopurulent, streaked with pigment, and not lumpy. Bands and areolæ of elastic tissue present.

Circ. Org.—Apex beat at upper border of fourth rib, just outside nipple. Visible pulsatile movement (nearly synchronous, with ventricular contraction) in second intercostal space an inch and a half from left border of sternum. Low pitched systolic murmur at cartilage of second left rib; can be followed a little way upwards and outwards, but not downwards or to right side; it is increased by deep inspiration, and modified by position. Pulse 74, small.

Nervous System.—Attention introverted. Drowsy, but sleepless. Answers when roused. Sight and hearing defective. No headache. Occasional sensations of numbness in the limbs, and tremblings. Slight œdema of feet.

Diagnosis at bedside, as in summary.

Progress of Case.—Patient varied little. Sometimes obstinate vomiting: sometimes constipation, alternating with diarrhœa. No evening fever. Pulse never rose above 92, respiration above 26, temperature above 99; till near the close of life the figures were considerably lower. Upon great restlessness followed increasing weakness; then coma; and on the 3rd December, death.

Summary of Post-mortem Examination.—Heart small, and displaced upwards; no valvular disease; origin of vessels compressed by solidified lung, with pericardium adherent to it. Right lung, with the exception of some vesicular emphysema and some thickening and congestion of the bronchial mucous membrane, absolutely free from disease. Left lung universally adherent, diminished in bulk, and about its middle third dense and fibrous. When cut open, the summit was seen to be free from disease. The inferior part was traversed by fibrous septa, some of which, pursuing a horizontal direction, occupied the place of the bronchi and blood-vessels—some, intersecting, occupied the place of the interlobular areolar tissue. Imprisoned portions of lung contained cheesy deposits, at parts broken up into cavities. Several bronchial tubes were dilated, and terminated in ulcerous dilatations. No grey granulation anywhere to be found. Bronchial glands enlarged and cheesy. Liver very large and waxy. Capsule of spleen much thickened. Kidneys granular and capsule adherent. All these organs at scattered spots became reddish-brown on the application of iodine; *so also did some minute portions of the fibroid deposit in lung.* Numerous deposits in and ulcerations of ileum. Mesenteric glands enlarged.

Extracts from Report of Microscopic Examination.—Lungs: The horizontal septa consisted almost exclusively of obliterated blood-vessels, or bronchi thickened by adventitious fibroid tissue. The intersecting fibrous bands occupying the interlobular fissures, and ramifying in varying directions from them

consisted of a true areolar tissue. In the dense slate-coloured portions of lung the alveoli were filled by what seemed an amorphous substance, having occasionally an appearance of fibrillation. At some parts this substance, under the action of weak acid or alkaline solutions, exhibited the presence of a few epithelial-like cells; at others, no manipulation and no reagent revealed the presence of any structural element. It seemed as if three morbid processes had been at work—the spread of a true areolar tissue from the pleura, interlobular fissures, bronchi, and blood-vessels; the production of a fluid which pervaded the textures, and clotted into amorphous moulds of the alveoli; and a simple fibroid degeneration of normal textures.

The smaller cheesy masses occupying the centres of the lobules were composed chiefly of flattened epithelial-like cells, with particles like the white blood corpuscles, a few blood-discs, and some granular matter. The larger cheesy masses were differently constituted. In each the central parts were composed of a granular detritus; outside lay free nuclei and granular matter; still more externally were disintegrating cells; and on the circumference were swollen and distorted cells, with multiple nuclei and vacuoles. To the naked eye the masses had the aspect of what is called cheesy tubercular infiltration; but the microscope showed that they had the structural characters of what the author has described as *epithelial pneumonia*.—LECTURES AT COLLEGE OF PHYSICIANS, 1866.

. . . . . .

Remarks.—It is no longer matter of doubt that the term phthisis, as commonly employed, comprehends several states of lung, distinct in their origin, nature, progress, and issues. To set forth in a clear manner the assemblage of symptoms by which they are respectively to be distinguished during life is the greatest desideratum in the pathology of lung affections. Without such knowledge the results of clinical inquiry are vitiated, and the conclusions drawn from therapeutical experiments rendered worse than worthless. . . .

The term fibroid phthisis is applied to those cases in which the leading anatomical facts are the absence of tubercles in the lung, and its invasion and contraction by fibrous tissue, or a fibrogenous substance involving bronchial dilatations, cheesy deposits, and small cavities commonly confined to the lower two-thirds of the organ. . . .

The diagnosis in this case was not difficult. Tubercle was excluded by the absence of disease in right lung, by the assumption that the apex of left lung was free, and by the negative character of the general symptoms. There was no great hurry of the circulation, no distressing dyspnœa, or breathlessness, no evening fever, no continued elevation of temperature (Ringer), and no profuse perspirations. In the presence of positive signs of another constitutional affection, the occurrence of diarrhœa cast no serious doubt upon the propriety of the exclusion. Diarrhœa, dependent or not upon ulceration of the bowels, may arise in almost any form of chronic disease to which the lung is liable. Cirrhosis and chronic pleurisy were excluded by the evidences of pulmonary cavities derived from the physical signs, and from the microscopic examination of the sputum. Was it cancer? The patient's aspect, the rapid progress of the disease, its unilateral character, the retraction of the chest-wall, the continuity and extent of the dulness, and the frequent hæmoptysis, all disposed one to the adoption of this conclusion. But then the very considerable contraction of the chest-wall, the moist râles, the characters of the sputum, the justifiable conviction of the presence of several scattered cavities, the absence of any evidences of outgrowth, enlarged glands, or tumours in other parts, and, above all, the presence of many concurrent evidences of constitutional fibroid degeneration, eliminated the idea of cancer, and led to the only conclusion tenable, that the case was one of *Fibroid Phthisis*.

The evident existence of fibroid degeneration in various organs and tissues led to the conclusion that the lung disease was essentially constitutional; and the fact of the disease being unilateral was held, in the light of the history of primitive pulmonary cancer, to be no bar to this conclusion.

The existence of cheesy deposits was inferred, first, from the physical signs—a coarse, rather dry crepitation, followed by dulness, tubular breathing, and broncophony; secondly, from past pathological experience of such cases; and, thirdly, from the existence of ulcerations in the bowels. Cheesy matter—that is, almost any pathological product in the way of structural and chemical degradation—appears from the author's experiments, often repeated, to be in some manner an efficient cause of secondary deposits in various textures and organs, and of secondary deposits and ulcerations in the bowels.

The systolic basic bruit was inferred to be dynamic, and to be owing partly to pressure, and partly to the altered axial relation of the heart and great vessels, by reason of its variability and the readiness with which it was influenced by changes of position, by forced inspiration, and by coughing.

The case concludes with a summary of the more important circumstances tending to elucidate the nature and facilitate the diagnosis of Fibroid Phthisis.

1. Fibroid Phthisis may have a constitutional or a local origin. (C. J. B. Williams; Handfield Jones.)

2. When the disease has a constitutional origin, the fact will be indicated by the presence of signs of fibroid disease in other organs and tissues; by white skin spots (H. G. Sutton); by corneal degenerations (Canton); by anæmic urine containing granular matter, granular casts, or albumen; by evidences of cirrhotic or amyloid liver, of enlargement and hardening of spleen, and of induration of the nervous centres.

3. The constitutional state of which these growths, deposits, or degenerations are the manifestations seems to be closely connected with, if not dependent upon, the abuse of alcohol (Huss), syphilis (Wilks), rheumatism and gout (Author), exhausting discharges (Dickinson), and defective excretion (Author).

4. The actual product of this state appears either as a true fibroid tissue or as a tough, hard amorphous fibrogenous substance (Williams; Walshe). The latter is closely akin to the "amyloid material," and even in the lung is sometimes reddened by iodine. It does not appear to be the product of cell proliferation, but to be the result of a real exudation in the ordinary sense of that term. The former can always be traced into continuity with perilobular, peribronchial, perivascular, or subpleural areolar tissue. The latter occupies the alveoli, and is often found in isolated patches. Structural elements, such as are seen in adjacent parts, are often found in it. When nuclei are present in it, they are the ordinary circular nuclei of the alveolar walls, and not the spindle-shaped or oat-like nuclei of connective tissue. In other organs, the fibrogenous material sometimes contains oat-shaped nuclei derived from proliferation of the vascular walls. To this source also are to be referred many of the nuclear fibres and spindle-shaped cells supposed to be illustrations of the cellular development of fibrous tissue.

5. When the disease is not of constitutional origin, there will be found evidence either of the pursuit of some occupation exposing the patient to the inhalation of irritating particles (Peacock; Greenhow), of the existence of tubercular phthisis, long continued bronchitis, or of some former attack of acute disease, such as fibrinous pleurisy, pericarditis, or what the author has called the corpuscular form of pneumonia.

6. The disease commonly affects one lung, and more commonly the left than the right.

7. If the disease affects both lungs, it is, as a rule, either the effect of mechanical irritation, or it is accompanied and has probably been caused by the presence of tubercles.

In rare cases, the double affection may be caused by rheumatism or syphilis (Wilks).

8. In Fibroid Phthisis there is always contraction of the chest-wall. The percussion dulness is harder, higher-pitched, and more uniformly continuous than in any other lung disease. Resistance of thoracic parietes is greatly increased. Intercostal spaces are depressed. Sometimes the dulness is tubular. Vocal fremitus is at one time increased, at another greatly diminished. Over the fibroid lung one hears blowing breath sounds often without audible prolongation of expiration; occasionally coarse dry and moist râles, superficial creaking, and diffuse broncophony. Over cheesy deposits of any extent the breath sounds are sharply tubular, the expiration prolonged and the vocal resonance broncophonic, sniffling, and circumscribed.

9. If the apex of the diseased lung is involved in the solidification, there is reason to suspect the existence of tubercles; if there is moist crackling in the supraspenous fossa, the suspicion amounts to probability; and if with the slightest dulness over the summit of the opposite lung there is any moist crepitation, doubt is practically no longer possible.

10. When the lung below the solidification is healthy, expiration is peculiarly prolonged and puffy.

11. When cavities exist, they commonly occupy the mammary region; occasionally they are found in the base, and with extreme rarity in the summit of the lung. (Sutton's cases appear to have been complicated with tubercles).

12. When about the middle of the lung several cavities lie

near together in a horizontal or diagonal line, and are bounded by solidified lung, they are in all probability due to dilated bronchi. Cavities resulting from the breaking up of cheesy deposits are commonly isolated, irregularly placed, larger, and yield on auscultation unmistakable cavernous or amphoric breathing and pectoriloquy. The only certain evidence, however, of the existence of cheesy cavities is the presence of areolæ of elastic tissue in the sputum.

13. In the neighbourhood of the solidified lung it is not uncommon to find patches and tracts of lung in a condition of extreme vesicular emphysema; *and the atrophic changes constituting it appear in many instances to be due to plugging, or some other obliteration of branches of the pulmonary artery. It is therefore a statical as opposed to a dynamical emphysema.*

14. When the left lung is affected, the heart is usually displaced upwards, and a little outwards. When the right lung is affected, the heart is drawn chiefly outwards, and a little upwards. In both cases, a low-pitched systolic bruit is commonly heard over the pulmonary artery.

15. The cough is paroxysmal, and ordinarily induces vomiting. The expectoration varies; it is usually yellowish, greenish, or ashen grey, studded with pigment streaked with blood; sometimes fœtid, and ejected with difficulty after several ineffectual fits of exhaustive coughing.

16. The general symptoms, viewed collectively, are strikingly different from those of tubercular phthisis. The skin is, local sweats excepted, dry and inactive; there is no continuous elevation of temperature, no evening fever, seldom any hectic flushing. Till the disease is far advanced, the breathing is quiet, and the pulse below 84.

17. Slight œdema of the lower extremities is very common in the course of this disease, and almost always present at its close.

18. Patients who have long suffered from Fibroid Phthisis, whether of local or constitutional origin, become at last pallid, waxy-looking, and cachectic.

19. The disease is commonly slow in its progress, and when it complicates tubercles it retards disintegration and greatly prolongs life. This may explain some of the cases of unusually prolonged phthisis in spirit drinkers.

20. The frequent occurrence of even copious hæmoptysis, and the setting in of diarrhœa in the course of this disease, may justify a suspicion of the development of tubercles, but are not conclusive evidences of their presence. Hæmoptysis, diarrhœa, and ulceration of the bowels often occur during life without a solitary tubercle being found after death.

An animated and very interesting discussion upon the above paper occupied almost the whole evening of the 28th. The debate begun by Dr. Williams was concluded by Dr. Pollock, who alone took any serious objection to the author's views. It is not our intention to follow the various speakers in the statement of their experiences; but we must take some notice of Dr. Pollock's objections, and of the answers which were made to them. Setting aside the objections obviously arising out of an imperfect acquaintance with the author's statements, Dr. Pollock's remarks may be summarized into an assertion of the tubercular character of the disease described; the expression of his conviction that tubercles would have appeared in the right lung if the patient had lived long enough, and his opinion that cases of the kind described by the author possessed no peculiarities sufficient to justify their separation from tubercular phthisis by a distinct name.

Dr. Clark began his reply by saying that if he had not been present, and Dr. Pollock's remarks had been reported to him he would have declared the report to have been incredible. Whilst paying a well-merited compliment to Dr. Pollock's clinical contributions to the history of phthisis he held that his unitarian views of its nature were not only untenable, but demonstrably erroneous. Dr. Clark would not meet mere assertion by assertion, but by argument and fact. Dr. Clark then proceeded to show that there was nothing in the diseased lung of his patient corresponding to any strict definition of tubercle. Here he noticed the loose illogical and vicious way in which this word was used, *and showed how necessary it was for the purposes of a sound definition to keep in view whilst framing it, not merely minute structure, form, seat, and methods of distribution, but the clinical phenomena grouped around the presence of the thing to be defined.* The fibroid deposit could not be called tubercular, and yet that was the main anatomical element of the cases which he described, and by which to avoid a hypothesis he had named them. If the cheesy masses of secondary lobular pneumonia were to be called tubercles then you would be confusing under one term products distinct and different from each other in origin, structure, seat, methods of distribution, and clinical characteristics; then language would cease to be useful to science, and progress in this direction would become hopeless. In true tubercular phthisis the primitive anatomical element was a grey granulation; in the disease described it was, in the first place, a fibroid or fibrogenous substance, and in the next a lobular cheesy pneumonia. The grey granulation was composed of nuclei or small cells, and a matrix sometimes fibrillated. The cheesy deposit was composed of large epithelial-like nucleated cells, or the products of their disintegration; the former sprung from the walls of blood vessels, the nuclei of textures, or the germs of colourless blood-cells were seated essentially in the depths of the textural elements; the latter sprung from the epithelial cells or their analogues on the alveolar walls, and were contained in the cavities of the alveoli. In tubercular phthisis the apex was commonly first affected, and the disease scarcely ever remained confined to one lung. In this disease the apex of the lung was commonly free, and in the majority of cases only one lung was affected. In tubercular phthisis the causes were most obscure. Here they were, most obviously, either an acute or chronic local inflammation, or a constitutional state clearly expressed. In tubercular phthisis the constitutional symptoms were profound; there were the quick pulse, the elevated temperature, the night sweats, and the great exhaustion. In fibroid phthisis constitutional suffering was often slight; the pulse slow; the temperature scarcely above that of health, and the disease indefinitely slow in its progress. But he would not multiply distinctions recognisable at the bed-side, even by tyros. It was impossible to have any intelligent and honest doubt of the existence of such cases as he had described, and of their peremptory claim to separate classification. He had no doubt that the time was nigh at hand when they would be as readily recognised as cases of pneumonic phthisis now are. For cases so distinct in their clinical and pathological relations distinctive designations must be found. To continue the use of the term tubercle in a comprehensive, as opposed to an exact sense, would be to perpetuate that confusion in which the whole subject of lung diseases is still needlessly involved, and to destroy the hope of acquiring any greater therapeutical power over them than we at present possess. To make any advance we must differentiate and define.

Literature.

DISEASES OF THE PROSTATE.

RATHER more than ten years ago there appeared a work on this subject which, while it put forth views at variance with those generally taught, was founded upon extended anatomical researches, and accordingly at once took an important place in medical literature. In 1860 the Jacksonian Prize of the Royal College of Surgeons of England was conferred on the author for his essay on "The Healthy and Morbid Anatomy of the Prostate Gland," and in a second edition of his former work he incorporated that essay. Another edition has now been called for; accordingly we have before us Sir Henry Thompson's last production.[1]

Having given a history of this handsome volume, it is unnecessary to attempt any lengthened criticism. The author's views are now well-known to surgeons, and his position at University College and the hospital, entitles his opinions to great weight, besides which, a work comprising the Jacksonian Prize Essay is not likely to be overlooked. There are thirteen fine lithographic plates, one of them delicately coloured, in illustration of the text. We welcome Sir Henry Thompson's new edition, and commend it to all interested in the subject.

STONE IN THE BLADDER.

A not uncommon complication of diseased prostate is stone in the bladder, and Sir H. Thompson has devoted sixty pages at the close of his work to this condition.

By this we are reminded of the last work on Stone in the Bladder, which has made its appearance, and which we may therefore as well notice in this connection.[2]

The purpose of this work is set forth in the title, and is more

1 The Diseases of the Prostate; their Pathology and Treatment. By Sir Henry Thompson, F.R.C.S., &c. London: J. Churchill and Sons. 1868.

2 Stone in the Bladder, with special reference to its Prevention, Early Symptoms, and Treatment by Lithotrity. By Walter J. Coulson, F.R.C.S. London: J. Churchill and Sons. 1868.

fully stated in the preface to be "to draw particular attention to the early symptoms of stone in the bladder, with a view to its safe and more easy treatment, and to certain conditions which predispose to the formation of stone with a view to prevention." This object is ably carried out, and Mr. Coulson, who has acquired a considerable reputation as a practical lithotritist, shows that he has taken a large view of the department of practice he has chosen, and has not only cultivated the manual dexterity required for the removal of stone by the lithotrite, but has studied the derangements of the system which give rise to calculus deposits, and the means, regiminal and medicinal, by which they may be obviated.

The book consists of three clinical lectures on the early symptoms of stone, its removal by lithotrity, and the after-treatment, and a chapter on prevention, which has not been thrown into the form of a lecture. The lecture on the early symptoms of stone is the most valuable of the three. These are shown to be much less marked than is commonly stated, though perfectly conclusive when carefully watched. Mr. Coulson considers them under the heads of hæmorrhage, pain, and irritation, and urges especial attention to the results of exercise, which, giving rise to mechanical injury of the mucous membrane of the bladder by the movement of the foreign body over its surface, furnishes the first indication of its presence. His observations on these points are worthy of careful study; attention to them will lead to the detection of stone at a time when it can be removed without danger and with little pain. The use of the microscope is advocated, and an interesting case is given, in which the diagnosis was made by means of this instrument. In the examination to ascertain the presence of stone, Mr. Coulson boldly discards the sound, except in the case of children, and employs only the lithotrite. With the sound, failures repeatedly occur in the ablest hands, and the lithotrite is not only surer, but occasions no more pain, while obviously it saves time, and diminishes the number of examinations required; or, to make a brief quotation, "it enables you to deal with the enemy at once." It is not necessary to say much as to the operation for lithotrity and the after-treatment. The directions for the introduction of the instrument and the exploration of the bladder are particularly clear, and we may mention that Mr. Coulson discountenances preliminary injections, and emphatically condemns the practice of bringing away fragments in the lithotrite, or of washing out the bladder after crushing for the purpose of removing *debris*. Impaction of fragments in the urethra appears to be unknown in Mr. Coulson's practice, and he attributes this accident, when it occurs, to laceration of the mucous membrane of the canal. The only case mentioned was one in which a stricture of the urethra had been split by the dilator to allow of the introduction of the lithotrite.

We have left ourselves little space for notice of the chapter on "Prevention." The causation of the various forms of calculus has been carefully gone into, and the treatment recommended is judicious. The author has been prompt to apply practically the excellent researches of Dr. Roberts on the solution of calculus, more particularly in endeavouring to prevent the recurrence of stone after its removal. The practical bent of the work has not, however, prevented some of the disputed points in urinary pathology from being discussed. The book will form a welcome addition to the literature of stone, covering, as it does, ground in a great measure new, and we recommend it to the attention of our readers.

THE VENEREAL DISEASES.

On this subject Mr. Bruce, of the Westminster Hospital, has prepared a little tract of notes[1] for students attending out-patients' practice, which will be found very useful to beginners, since it contains, properly classified, such notes as the pupils might be expected to take of the surgeon's clinical remarks. They are, however, not disjointed, but carefully arranged, so that a perusal of these few pages will give an ordinary student a bird's-eye view, so to speak, of the several manifestations of syphilis. We recommend Mr. Bruce's notes to first-year's men.

BANDAGING.

Now that the College of Surgeons requires candidates to exhibit their skill in bandaging, more attention will be devoted to it than has been the case for some years past. Mr. Berkeley Hill, who teaches the art at University College, has prepared a small manual[1] which will prove a boon to many a young student. In a small compass he will here find all he wants to know about every form of bandage and its uses, as well as directions for using all other kinds of surgical apparatus. The descriptions are clearly and concisely written, and 110 excellent engravings appeal to the eye in the most forcible manner, and can scarcely fail to impress the directions on the memory of the student.

1 An Epitome of the Venereal Diseases. By Alexander Bruce, M.S., (Lond.) London: H. K. Lewis.

1 The Essentials of Bandaging. By Berkeley Hill, F.R.C.S., M.B., &c. London: J. Walton.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 18, 1868.

THE POOR-LAW BOARD AND DR. ROGERS.

THE Poor-law Board have called upon Dr. ROGERS, the Medical Officer of the Strand Union Workhouse, to resign his appointment, upon the ground that he has "placed himself in a position of antagonism to the Guardians, and has not evinced towards them that deference and courtesy which they are entitled to expect from their Officers." Dr. ROGERS denied this and other charges brought against him by the Guardians, and demanded an open inquiry—no reply was given to this application.

The question raised by the decision of the Board, and my attention has been directed to it by numerous correspondents, is whether the Poor-law Board have the power to dismiss a medical officer—appointed for life! upon an *ex parte* statement by the Guardians, that he is not sufficiently deferential towards them—such alleged want of deference not having interfered with the proper discharge of the duties of his office, as appears by the statement of the Poor-law Board, that "no complaint has been made to them in respect of the discharge of his strictly professional duties, and they do not doubt he has shown both zeal and ability in their performance." If the Poor-law Board have this power, their life appointments are a fiction, and no Medical Officer is safe who dares to speak, write, or publish anything contrary to the standard of deference and courtesy set up by the Guardians. Public opinion has declared itself in favour of Dr. ROGERS, with singular unanimity during his three months suspension. The ratepayers of St. Ann's, Soho, in which parish he resides, met in public-vestry meeting, with the clergyman of

the parish in the chair, to protest against the action of the Guardians, to express confidence in the Medical Officer, and to ask for a fair and open inquiry into the charges brought against him. A minority of the Guardians, comprising the most respectable and best-educated members, also addressed the Poor-law Board, scouting the malicious charges of the majority, and calling for the removal of Dr. ROGERS, suspension. This memorial remains unanswered to the present time. In answer to the vestry, the Board promised a fair hearing for Dr. ROGERS, a promise fulfilled by asking him what he had to say in reply to the "charges" which, by an industrious search of the minutes of the proceedings of twelve years, had been made to extend to more than 100 closely-written foolscap pages, half of them being copies of leading and other articles from the *Times*, the *Lancet*, and other journals, for which, without a tittle of evidence or proof, the Guardians held Dr. ROGERS responsible! Dr. ROGERS replied very briefly, reiterating his request for an inquiry, probably anticipating that he could not be condemned without one. But he was mistaken. Every circumstance points to the conclusion that he has been unfairly sacrificed to personal dislike. He had enemies among the Guardians—enemies at the Poor-law Board. Between these there appears to have been some sort of understanding, and upon most lame and impotent charges the Guardians suspended this able and faithful public servant, and the Poor-law Board have called for his resignation.

PHARMACY IN THE IRISH COLLEGE OF PHYSICIANS.

AT a recent Convocation of the President and Fellows of the King and Queen's College of Physicians in Ireland, a most important change was made as regards the declaration to be taken by Candidates for its license.

Hitherto no apothecary, English or Irish, could become a licentiate; and the sale of medicines under any circumstances was wholly forbidden to all ranks in the Dublin College.

According to the modern opinion of the Fellows this rule has been found to act injuriously; for not only were many English practitioners thus prevented from taking the license; but many Irish students were also thus precluded from entering the College of Physicians of their own country; and were obliged, by the force of circumstances, to resort to Edinburgh, or elsewhere, for what they could not get at home.

Under the new regulations, Licentiates of the Irish College of Physicians may compound and dispense, and charge for medicines for their own patients, and for none others. They may not keep open shop, or in anywise act as apothecaries—*i.e.*, as compounders (for sale) of the prescriptions of other practitioners. Apothecaries who may require their licenses as such for other purposes than keeping open shop may retain them, and, at the same time, become Licentiates of the King and Queen's College of Physicians in Ireland.

We have no doubt that many will avail themselves of this new piece of medical legislation which, in our view, will virtually cut away the ground lately taken up by the Irish Apothecaries' Company from under their feet; for no one who wants to be "a general practitioner" will hesitate for a moment between the "License" of the College of Physicians, and the "Certificate" of the Apothecaries Hall, of Dublin.

The following is the form of declaration to be signed by each candidate for the former license immediately previous to his admission as a Licentiate:—

"I hereby authorise the President and Fellows of the King and Queen's College of Physicians in Ireland to erase my name from the list of Licentiates; and I consent to surrender the Diploma received from the College, if I shall (after having obtained the License of said College) keep open shop for the sale of medicines."

It should be borne in mind that this new regulation is made wholly irrespective of the institution of the new order of "members" which the President and Fellows are generally understood to have under their consideration at present.

If carried into effect, this new order will virtually be no more than a revival of the order of "Candidates" which was abolished finally in 1792. The new, or revived, order, if instituted, will, *de facto*, replace that of the present Licentiates. "Members" will probably be subject to a higher class of examination than Licentiates; they will be wholly forbidden to practise pharmacy, or sell medicines, and from them alone will the Fellows be elected.

Notes on Current Topics.

Representation of the London University.

THE statement we made last week was quite correct, although a contemporary has hastily pronounced it "devoid of any foundation." The member of the British Medical Association who has duped the editor of that society's journal into asserting that the conservative graduates "have not, and do not propose to, put forward" Dr. Miller, would do well to confine his contradictions to matters within his sphere of observation.

Some of the foremost graduates have *re*-asserted their intention to make further efforts to bring forward Professor Miller, and others have expressed regret at having, as they now think, too hastily promised to support Mr. Lowe.

The gentleman, whose love of contradiction has added one more to the considerable stock of uncalled for and inaccurate denials of our contemporary, may be disposed to impugn this statement also. Nevertheless, we repeat that which the graduates in question have said to us.

Mortality in Hospitals.

LAST year, in 120 public institutions in London, there were 12,002 deaths, being one-sixth of the total metropolitan mortality. Thus 170 out of every 1000 deaths in 1867, took place in hospitals, and 3·9 of every 1000 of the population were in these hospitals at the time of their death. The mortality of the 36 general hospitals was 329, equal to 46·6 per 1000. That of 8 special hospitals was 929, equal to 13·2 per 1000; of 4 lying-in hospitals 82, or 1·1 per 1000; of 8 military and naval hospitals 177, or 2·5 per 1000. There were 100 equal to 1·4 in 3 hospitals or asylums for foreigners. In 19 lunatic asylums there were 357 deaths, being 5·4 per 1000 deaths. In the 46 London workhouses there were 6829 deaths or 96·7 out of every 1000 deaths in London.

If now we take in the deaths in hospitals and other institutions in the country, we find that in 853 public institutions in England and Wales containing 154,602 inmates there were 32,437 deaths. This is a mortality of 210 per 1000. In 690 workhouses, the mortality was 190 per 1000. In 106 hospitals it was 569. In 57 lunatic asylums 111.

Medical Society of London.

This, the oldest of all the London Medical Societies, held its ninety-fifth anniversary festival at the Freemason's Tavern on March 9th, Henry Smith, Esq., President of the Society, in the chair.

The Chairman was well supported by the Presidents of the Medico-Chirurgical and Obstetrical Societies, the Master of the Society of Apothecaries, and by Dr. Forbes Winslow, Dr. Hare, Mr. De Meric, Dr. Richardson (President elect), and other distinguished members of the profession.

In proposing the toast of the evening the Chairman congratulated the Fellows present on the flourishing condition in which he left their Society, and alluded to the distinguished men under whose auspices the society had first come into existence.

The health of the President was proposed in a very happy speech by Mr. De Meric, and that of the President Elect met with a most warm reception by the company when proposed to them by Dr. Forbes Winslow. Toasts in honour of the other learned Societies, and of the two Secretaries, Dr. Abbotts Smith and Mr. Mason, concluded the evening. It should be mentioned that before the dinner the usual oration was delivered before the Society and their guests by Mr. Teevan the orator for the year. This oration will appear forthwith in our columns.

The following officers for the coming year have been elected :—*President*—B. W. Richardson, M.D. *Vice-Presidents*—George Buchanan, M.D.; Victor De Méric, Esq.; Andrew Clark, M.D.; and John Gay, Esq. *Treasurer*—C. H. Rogers-Harrison, Esq. *Librarian*—Edward Head, M.D. *Secretaries in Ordinary*—Francis Mason, Esq.; and A. E. Sansom, M.D. *Secretary for Foreign Correspondence*—Julius Althaus, M.D. *Council*—J. W. Barnes, Esq.; John Birkett, Esq.; W. Cholmeley, M.D.; Charles Cogswell, M.D.; Alfred Cooper, Esq.; Walter J. Coulson, Esq.; R. W. Dunn, Esq.; Tilbury Fox, M.D.; S. Day-Goss, M.D.; Arthur Leared, M.D.; Morell Mackenzie, M.D.; Peter Marshall, Esq.; Henry Maudesley, M.D.; F. W. Pavy, M.D.; William Potts, Esq.; W. R. Rogers, M.D.; Abbotts Smith, M.D.; Henry Smith, Esq.; E. Symes, Thompson, M.D.; W. Spencer Watson, Esq. *Orator*—Duncan Gibb, M.D.

Gulstonian Lectures.

The lectures founded by Dr. Gulston, and delivered annually at the Royal College of Physicians of London, have been concluded for this year. As we have previously stated, Dr. John Harley was the lecturer for 1868. His first lecture was given on the 4th March, and in it he chiefly considered the physiological effects and therapeutical uses of conium. The result of his experiments seems to be that this drug depresses the functional activity of the corpora striata, as well as the reflex function of the spinal chord. The earliest symptoms are produced on the third nerve. Dr. Harley considers that conium exercises the same calmative influence on the nervous centres that is produced on the brain by opium. According to this view a patient completely under the influence of the drug may be looked upon as in a condition in which all motor function is in abeyance. The mode in which the poison is removed from the system also claimed attention.

Dr. Harley gave his second Gulstonian lecture on Friday, March 6th ; the subject treated of was the action of Atropia and Belladonna on the system. The experiments detailed went to prove that Belladonna acted as a powerful stimulant to the heart, and might be of service, by subcutaneous injection, in cases of prolonged syncope. Further, it was shown that this same medicine acted decidedly as a diuretic, and also as a quickener of the circulation through the lungs, and as a general oxydising agent.

The third and last of the Gulstonian Lectures was given before the College of Physicians on Wednesday the 11th. In this lecture, the properties of hyoscyamus were brought before the audience, and a variety of interesting experiments on men and animals were related. It appears that hyoscyamus, like belladonna, has a stimulating effect on the sympathetic nerve ; though not to the same extent as the last-named drug. The tincture and juice of hyoscyamus may be given to adults, and also to children, in doses of half-an-ounce or more without producing any more serious toxical effect than dryness of the mouth, and acceleration of the pulse. Hyoscyamus, when administered by the mouth, or by hypodermic injection, can, like belladonna, be very soon detected in the urine.

The lecturer, owing to press of time, was obliged to omit the account of many of his experiments on the conjoint action of opium and belladonna, and of morphia and atrophine, but several experiments were narrated which decidedly proved that belladonna greatly intensifies and prolongs the narcotic effect of opium when these two drugs are simultaneously introduced into the system.

In concluding, some useful remarks were made as to the causes of our ignorance respecting the action of remedies on the system, and physicians were exhorted to a more accurate study of practical therapeutics.

Close of Dr. Richardson's Lectures on Experimental and Practical Medicine.

The able course of lectures delivered this year by Dr. Richardson, and from time to time noticed in our columns, was concluded on the 10th inst. by a learned exposition of the lecturer's views on the nervous system, and the mode in which it is affected by anæsthetics. From various experiments, Dr. Richardson concludes that we have no reason to suppose that these agents enter into combination with the tissues. Nor does he regard the nervous system as the originator of force. He looks upon it rather as evincing its action in resistance to force from without. Vital force arises from the oxydation of carbon ; and, consequently, is eliminated at every point of the animal economy, and is conveyed to the nervous tissues by the circulating blood. Force is brought to bear upon the nervous system, which immediately offers resistance to it, or we may say that the system has at all times stored in it a certain amount of force, and that any addition to this disturbs the equilibrium, and produces an effort to re-establish the balance.

The lectures are now closed for the season. The next session does not commence until next October. It would, therefore, seem a suitable time to express what has so often been said during the course by those who have had the pleasure of attending, that Dr. Richardson may long continue to give these *seances*, which have become one of the most useful features of London medical society. Nor can we refrain from asking how it is that none of our colleges, or other learned bodies, have placed at his disposal their public rooms ? We should have thought that the Royal Colleges in Pall-Mall and Lincoln's-Inn would have competed for the honour of having these lectures delivered in their theatres. Men willing to lecture, a good audience,

and a private room—yet public halls almost constantly unoccupied! Is not this a disgrace to those who have the control of public halls? Dr. Richardson is one of the most distinguished Fellows of the Royal College of Physicians of London. Why do not his brother *Fellows* look to this?

Scotch Schools.

While the subject of middle-class schools is filling the papers, we cannot do better than extract the following description of a Scotch school, given by Mr. R. D. Fearon, one of the Assistant-Commissioners.

"The school is crowded with 60 or 100 boys and girls, all nearly of an age, seated in rows at desks or benches, but all placed in the order of merit, with their keen, thoughtful faces turned towards the master, watching his every look and every gesture, in the hope of winning a place in the class, and having goods news to bring home to their parents at tea time. The *dux* is seated at the head of the class, wearing perhaps a medal; the object of envy and yet of pride to all his fellows; fully conscious both of the glory and the insecurity of his position; and taught, by the experience of many falls, the danger of relaxing his efforts for one moment. In front of this eager animated throng stands the master, gaunt, muscular, and time-worn, poorly clad and plain in manner and speech, but with the dignity of a ruler in his gestures, and the fire of an enthusiast in his eye, never sitting down, but standing always in some commanding position before the class; full of movement, vigour, and energy; so thoroughly versed in his author or his subject, that he seldom requires to look at the text-book, which is open in his left hand, while in his right he holds the chalk or the pointer, ever ready to illustrate from map or black board, or, perhaps, flourishes the ancient "taws" with which in former days he used to reduce disorderly new-comers to discipline and order. The whole scene is one of vigorous action and masterly force."

The teachers in these schools are usually graduates of the Scottish Universities, and the whole report speaks of them in most favourable terms. Another point mentioned is the interest taken by parents in the progress of their children. The schools are, in fact, practically governed by the parents, who pay the cost of the education. The Commissioners may well approve so successful a system which is 300 years old, and which makes every parent, according to Mr. Fearon, as interested in the child's position in the class as he is himself.

Metropolitan Poor-law Medical Officers Association.

At a meeting of the Council of this Association, held on the 10th inst., Dr. Rogers tendered his resignation of the office of President. The Council, after expressing the surprise and regret with which they had learnt that the Poor-law Board had called upon Dr. Rogers to resign his appointment as Medical Officer of the Strand Union Workhouse, after stating that "no complaint has been made to them in respect of the discharge of his strictly professional duties; and they do not doubt that he has shown both zeal and ability in their performance," passed a vote of thanks to him for his past services, and, having declared their undiminished confidence in him, and their belief that it is still in his power to do good service in the cause of Poor-law Medical Reform, they unanimously requested him to continue to hold the office of President of the Council until the next quarterly general meeting of the Association, a course to which Dr. Rogers, after suitable acknowledgment of the kind feeling which dictated the proposition, cordially assented.

The Royal Commission on the Water Supply.

The report of the Royal Commission appointed to inquire into the metropolitan water supply is already decided upon, and will shortly be published. We are enabled to state that this report decisively rejects the various ambitious and expensive schemes that have been proposed, and recommends that the water supply should continue to be drawn from its present sources. The evidence adduced has satisfied the Commission of the sufficiency of the existing supply, as well as of the relative purity of the water.

The report will probably recommend a constant service at high pressure, and all the companies are, we believe, ready to adopt the recommendation.

Fibroid Phthisis.

An unusual degree of interest has been excited by the case of this disease reported to the Clinical Society of London by Dr. Andrew Clark, and of which a full abstract is given in the present number of The Medical Press and Circular.

Dr. Clark, it will be seen, looks upon fibroid as quite a distinct variety of phthisis, and has brought forward his views in a manner that could not fail to command attention. The subject is now before the Medical Society of London, and will consequently again be referred to in our columns. From what we hear we are disposed to think Dr. Clark's views will meet with general acceptance.

The Poor-law Board on the Supply of Medicines for the Sick Poor.

Owing to the pressure on our columns we are unable to insert the important correspondence between the Poor-law Board and the Council of the Metropolitan Poor-law Medical Officers' Association, arising out of a resolution passed at the quarterly meeting of the association. In our number for Feb. 26[1] we explained the bearings of the question, and, referring to section 69 of the Metropolitan Poor Act, 1867, which provides for the payment for medicines out of the Common Poor Fund, we stated that it had been assumed that as "the salary of a medical officer who has contracted to supply the medicines includes payment for the same, the repayment of the salary out of the Common Poor Fund is virtually repayment of the 'expenses incurred'" We regret to find that the Poor-law Board have taken this view of the case—strictly legal, we fear, but "entirely opposed to the spirit of the act." The promise, then, of Mr. Hardy, that "the drugs will be supplied by the unions," is a dead letter, and we can well understand the irritation of the medical officers at finding themselves still saddled with this charge. There appears to be a growing feeling in this large and respectable body of our profession that whatever benefits the poor may ultimately derive from the act, they themselves, or many of them, especially the workhouse medical officers, who have borne the heat and burden of the day, are likely to be thrust to the wall. So far, it is certain, they have gained nothing by the change which was effected by the passing of the act just a year ago. We trust that the question of the supply of medicines, and the formation of dispensaries, which appears to be progressing very slowly, if moving at all, will shortly be raised in the House of Commons. We are informed that not one dispensary has been opened as yet, and so far as we can ascertain, no dispensary committee

1 *Vide* Medical Press and Circular, page 185.

has been appointed. We cannot conclude our remarks on the correspondence before us without referring to the satisfactory opinion elicited from the Poor-law Board, that "the supplying of medicines by the guardians as a distinct proceeding on their part is an expedient course," and we hope, with the Council of the Association, that it will have due weight with the guardians, not in the metropolis only, but in all parts of the kingdom.

To-morrow (Thursday) a meeting is announced to be held at Masbro' in Yorkshire, to endeavour by united action on the part of the profession in that district to raise the present inadequate rate of payment made by the various sick clubs and societies for professional attendance during sickness. We heartily sympathise with the promoters of this object.

An indignation meeting was held last week in Southwark, caused by an alleged proposal to cart away the remains of the bodies in the Lock burial-ground. A resolution declared that such a proceeding would not only be a violation of the sanctity of the grave, but a constant cause of disease to the inhabitants of the locality. It was estimated that in 40 square yards 35,000 bodies have been interred. We trust they will not be disturbed.

Deaths from fever in the little village of Terling still occur; three more victims to the malady have succumbed during the past week, making 44 in the space of two or three months.

A sum of £150 has been recovered from a copper extracting company for damages to health and property caused by the noxious vapours emitted from the works.

Drs. Chambers, Druitt, and D. W. Moore are the three gentlemen selected in the last number of "Photographs of Eminent Medical Men." The likenesses are very good, and the letterpress is to the point.

It is said that several new candidates may be brought forward for the Principalship of Edinburgh University. Surely either Professor Christison or Sir James Simpson might satisfy the curators.

A bulky blue-book on Country Workhouses has appeared. It fully justifies our predictions as to the condition of these institutions. The Report on the Farnham Workhouse has likewise been issued, and consists of 160 pp.

Dr. Silver, on obtaining the Assistant-Physiciancy to Charing-cross Hospital, vacates the Chair of Botany. Applications for the latter may be sent in up to the end of the month.

Viscount Lifford will inquire after Easter the intentions of the Government as to extending the Contagious Diseases' Act, 1866.

A Poor-law Amendment Bill was read a first time in the House of Lords on Friday last.

Sir M. H. Beach is the new Parliamentary Secretary to the Poor-law Board.

SURGICAL SOCIETY OF IRELAND.

Friday, 14th February.

Mr. Porter, Vice-President of the College, in the Chair

(Continued from page 225.)

A CASE OF FRACTURED PATELLA, TREATED BY MALGAINE'S HOOKS.

By Mr. H. G. Croly.

Mr. President,—I feel that no apology is required in bringing under the notice of the Surgical Society the subject of fractures of the patella, when I find the following statement recorded in one of the standard works of the day:—

"The author believes from the results which he has seen, that fractured patella is one of the opprobria of English surgery."

I have had considerable experience in the treatment of the accident, and watched the result of the different methods of treatment recommended by authors, viz.:—Sir A. Cooper's plan, by a leathern strap buckled above the patella, with another strap passing under the foot; Wood's splint, which elevates the heel and has hooks behind to receive the figure of right bandage; Nélaton's plaster of Paris and strach bandage, strapping the fragments together with adhesive plaster, and elevation of the body to relax the muscles, &c., &c.

And though I have had several cases in which short ligamentous union took place, I was not satisfied with the result of the ordinary modes of treatment, which are exceedingly troublesome, painful, and tedious.

My special reasons for adopting the treatment of Malgaine in the case which I am about to detail were:—

1st. The great difficulty of bringing the upper fragment into anything like close contact with the lower one, &c.

2nd. The patient could not bear the appliances alluded to.

Mr. H——, aged 53 years, chief officer of Her Majesty's Revenue cruiser "Stag," was admitted into the City of Dublin Hospital, on the evening of the 27th of November, 1867, in an insensible state. The sailors who conveyed him to hospital gave the following account of the accident he met with. He was superintending the putting on of a false-keel on the "Stag" at the Ringsend dry-dock, about 3 o'clock in the afternoon; the ground was slippery from frost—his foot slipped, and he fell head foremost into the stone-bason, a height of about 20 feet; he was stunned from the fall, and his men lost no time in conveying him to the hospital.

It was my accident week, and Mr. Brown, the senior resident pupil, sent me notice of the case, and I visited the patient at once. I found him suffering from symptoms of concussion of the brain; there was a large contusion over the left brow and corresponding parietal region, and an angular projection of the left parietal bone caused by a fracture. On further examination it was discovered that he had a transverse fracture of his left patella, the fragments being sufficiently separated to allow my two first fingers in between them; the leg was bent; there was considerable effusion into the knee-joint, and the integument along the tibia was stripped off; *there was no abrasion over the knee.*

I first directed my attention to the concussion symptoms, and when reaction became established, I placed the left leg in the extended position, on a well padded M'Intyre's splint, and *raised the heel;* the limb was suspended in Luke's fracture cradle; and a cold lotion with pieces of ice were directed to be applied to the knee-joint.

The patient passed a restless night, and vomited several times; the fluid discharged from his stomach had a peculiar oily smell.

November 29th.—The swelling in the knee-joint having subsided, a figure of eight bandage was applied with moderate tightness, and the patient put into the *half-sitting posture.*

30th.—Patient became delirious, and commenced to remove the splint and bandages; he was ordered—

Lig. opii sedativi, ℥ij.
Tart. antimonii, gr. ij.
Mist. camph., ad ℥viij. ℿ.

Sumat cochl. amplum tertis horis.

After a couple of doses of this mixture he fell asleep, and had no return of the delirium.

December 1st.—Wood's splint for fractured patella with the figure of eight bandage, was applied with great care; the splint was kindly lent me by Mr. Porter.

2nd.—I visited the patient three times daily, and each time found the bandages loosened, and the fragment as wide apar

as ever. I tried strapping with plaster, and other modes of treatment, but he said he could not bear any of them. I explained to my patient, who is a most respectable and intelligent man, that he would, if he persisted in loosening the appliances, have an un-united fracture; he said he could not help it, and would not bear the strapping or bandaging.

I then told him of the "hooks," and confessed I had no experience in the use of them; he said he would allow me to put them on; accordingly, I got the hooks from London, and on the 4th of December, applied them in the following manner:—

I applied the "æther spray" to the integuments immediately above the patella over a small space, and having produced a sufficient degree of coldness, I felt for the upper margin of the patella, and put in the upper hooks (which were previously well oiled) into the quadriceps extensor tendon, so that their concavity embraced the superior border of the bone; the points penetrated about ¼ of an inch. I then applied the æther spray over the ligamentum patella, and applied the lower hooks, their concavity embracing the lower edge of the patella—the hooks held steadily by an assistant, with the screw I gently approximated them. The patient did not complain of pain at the time, and merely suffered a slight pricking sensation during the remainder of the day.

December 14th.—I tightened the hooks, and the fragments of the bone were in such perfect apposition that I could not feel any line of separation.

27th.—Hooks removed; limb still kept elevated on Wood's splint. A drop of pus escaped from each point where hooks were inserted. They were twenty-three days in.

January 7th.—Patient removed to lodgings near the city.

10th.—Starch bandage applied, and pasteboard instead of Wood's Splint.

February 12th.—Cast of knee and photograph taken, which I now exhibit to the society, also the drawing of the limb with the "hooks" in. I also exhibit the hooks and screw.

In bringing this case before the Society, I do not wish to under-rate the ordinary methods of treatment which I have on several occasions adopted most successfully in fractured patella. In this special case, my patient would not submit to the appliances which I tried with him. I shall next read for the Society the queries put to my patient, and his replies, which are in his own handwriting and signed by him.

Queries put to Mr. Harris.

Q.—How did you like the figure of 8 bandages—strapping of plaster, and other modes of treatment adopted before putting in the hooks?

A.—I could not bear any of them.

Q.—Did you suffer much pain or annoyance from putting in the hooks?

A.—Not any after a very short time, and never more than a slight pricking which ceased very soon.

Q.—Did the hooks, whilst left in, cause pain or annoyance?

A.—Never in the slightest degree.

Q.—What did you compare the hooks to when asked by different gentlemen who saw you with me?

A.—White wadding after the slight pricking of the first day.

Q.—Can you feel the separation between the fragments as you move your finger over the patella?

A.—A slight ridge exists, next to being imperceptible.

Q.—If you fractured your patella again, or the other one, what treatment would you wish for?

A.—The same (hooks).

In the *Medical Times and Gazette* (1864), sixteen cases of fracture of the patella are recorded by Mr. E. Pyle, House-Surgeon to the Middlesex Hospital; eight were treated by ***Malgaine's hooks***, and eight by other methods. Mr. Pyle says that the introduction of the hooks has, *in no case*, given rise to local inflammation or injury to the joint.

He directs attention especially to two cases.

M. T., who figures in *both* tables, when admitted, had fracture of *both* patellæ, with separation of the fragments to the extent of ¾ of an inch on the right side, and ½ an inch on the left. Hooks were applied to right patella, and the left leg was elevated on Earle's bed, and the broken bone kept in position by bandages. When discharged, *complete union* had taken place on the *right side*, but on the left there was still a considerable interval between the fragments.

In case of W. S., the point of interest is this:—Two years before he had fractured the other patella, and after treatment on the old principle for eight weeks, an interval of about an inch still remained between the fragments; this time he remained in the hospital less than eight weeks, and went out with a closely united patella.

SYNOPSIS OF SIXTEEN CASES OF FRACTURED PATELLA—EIGHT TREATED BY MALGAINE'S HOOKS, AND EIGHT BY OTHER METHODS.

No.	Name.	Age.	Sex.	Treatment.	Result.	No. of days in hospital.	Remarks.
1.	M. T.,	37,	F.	Malgaine's hooks applied 4th day.	Close union (not bony.)	78.	Hooks applied for 23 days.
2.	C. C.,	39,	F.	Do. 1½ hours.	Complete union.	42.	Do. for 35 days
3.	A. B.,	47,	F.	Do. 6th day.	Line of division can be felt, but no distinct interval.	41.	Do. for 33 days
4.	R. E.,	40,	M.	Do.	Not ascertained.	71.	
5.	P. N.,	35,	M.	Do. 23rd day.	Good union.	77.	Do. for 19 days
6.	H. D.,	40,	M.	Do. 7th day.	Do.	57.	Do. for 21 days
7.	W. S.,	37,	M.	Do. 2nd day.	Complete union.	41.	Do. for 27 days
8.	A. S.,	61,	F.	Do. 2nd day.	Do.	48.	Not ascertained.
9.	J. Y.,	25,	M.	Limb elevated upon an inclined plain.	Firm union.	50.	
10.	J. V.,	25,	M.	Do.	Interval of ⅛ of an inch between the fragments.	28.	
11.	M. T.,	37,	F.	Do.	Interval of slight extent remaining.	78.	
12.	M. C.,	60,	F.	Do.	Fracture united.	49.	
13.	C. E.,	45,	F.	Do.	Interval of ½ an inch remaining.	72.	When nearly well, fell down again and separated, uniting medium.
14.	E. T.,	47,	F.	Do.	Ligamentous union, half an inch interval remaining.	56.	
15.	C. N.,	23,	M.	Do. back splint.	*Not united.*	49.	
16.	E. W.,	47,	F.	Do.	Fracture ununited.	91.	

In the *British Medical Journal*, February 8th, 1868, a case of fractured patella, treated by Malgaine's hooks is recorded.

The patient was admitted into the Middlesex Hospital, under the care of Mr. Campbell de Morgan. The fracture occurred on the 11th of June.

On 4th day, hooks were applied.

On 16th of July, no inconvenience or pains from the hooks.

July 11th.—Hooks were removed.

Very good union had taken place (1 month.)

N. Nélaton used several times the instrument of M. Malgaine, in order to keep the fragments of the fractured patella together, and says "he never found any of those inconveniences to result from its use, which have been so singularly exaggerated."

The following case of fracture of both patellæ was admitted into the City of Dublin Hospital in 1859, and noted by me as House-Surgeon. The case occurred in Mr. Tufnell's accident week.

Ellen Morgan, aged 37 years, a nurse, residing at Pembroke-place, was carried to the hospital on Sunday evening, March 6th, 1859.

She states she was carrying a child down a dark stair an hour and a half before admission; when she reached the third step from the bottom, her feet slipped; she threw herself forcibly backwards to save the child, and, in so doing, felt her *right* knee crack. She then fell against the bannisters.

On examination I detected a transverse fracture of the right patella, and was able to put two fingers between the fragments; there was no contusion of the joint. The left knee-joint was much swollen and ecchymosed, so much so, that no accurate diagnosis could be made at the time. Subsequently, when all effusion had subsided, a transverse fracture was discovered.

Case in which the left patella was fractured by muscular action four times. I exhibit a cast and photograph.

James M'Court, aged 21 years, was admitted into the City of Dublin Hospital on the 28th of August, 1863. He gave the following account of the accident:—He was upon a wall, and dropped down, having had a hold of the top of the wall

with one hand, when he reached the ground he slipped, and was falling forwards, when he made a violent effort to save himself by throwing his body backwards—he felt his knee-cap crack ; he walked home, a distance of four miles, assisted by a boy.

On admission, the fracture was found to be transverse, there was no contusion of the knee, and he says his knee did not touch the ground.

Fracture united by short ligament, and he left the hospital contrary to my wish. He went to work, and had good use of the limb. On the 13th of October following, he slipped on an orange-peel, and was admitted again into the hospital with a fracture or separation of the fragments at same situation, caused by slipping on an orange-peel, and the violent effort to save himself from falling. It united in five weeks, and though cautioned as before, he left the hospital, and was admitted on the 9th of December following, with rupture of the ligamentum nerves, caused by an effort to save himself from falling downstairs. It united again, and on the 3rd of February, 1864, he was knocked off the channel, when he felt the knee yield, and was ashamed to come back.

The cast and picture show a separation of three inches between the fragments, with an intervening ligamentous substance. He wears a splint at the side of the knee, and walks as if he had a stiff joint.

CASE OF FRACTURE OF THE RIGHT PATELLA FROM MUSCULAR ACTION.

Michael Rourke, aged 35 years, a baker, residing at Cabinteely, slipped going down an inclined plane on May 28th, 1866, and was about to fall, when he threw his body forcibly backwards and fractured his right patella transversely ; he was conveyed to the City of Dublin Hospital on July 29th, sixty-six days after the accident, and admitted under my care. I treated him by elevation of heel, and figure of 8 bandages, and strips of plaster.

He left hospital on 29th July. He was unable to go to business for nearly a year after accident.

To-day, February 13, 1868, he called on me, and can move his knee and bend it well; there is a short ligamentous union.

Mr. Adams, in his valuable essay on Abdominal Conditions of the Knee-Joint, in Cyclopædia of Anatomy and Physiology, relates the following remarkable case which occurred many years ago in the Richmond Hospital, under the care of the late distinguished surgeon Todd:—

A muscular man, a lamplighter in this city, was on the top of his ladder when it slipped from the lamp-post, and he fell with it to the ground, making at the moment vain, but violent efforts to save himself. The whole muscular system, according to his own account, seemed to be suddenly thrown into energetic and involuntary effort to resist the fall; when he was lifted up he was unable to stand. Mr. Todd having examined him, found both olecranæ, and both patellæ broken transversely.

Holmes, in his system of surgery, says—"The frequency of fractures of the patella in the transverse direction seems to have led English surgeons to the belief that the majority of fractures of this bone are of muscular origin. This is contrary to the experience of foreign surgeons, who attribute the greatest number of these fractures to direct violence: thus, of nine cases related by Boyer, five were caused by falls on the knee, which accident likewise produced eleven of the nineteen fractures observed by Malgaine ; while of fourteen which came under the observation of Hamilton, thirteen were the result of direct blows on the knee, and one only was due to muscular action."

M. Malgaine has shown that the separation is not, after a time, occasioned solely by the ascent of the upper fragment, but that it depends partly upon the descent of the lower—in consequence of the gradual contraction of which the ligament patella undergoes. In one case he found this ligament shortened more than inch, and it was not more than half the length of the ligament on the uninjured side. The retraction of the ligament had, in this instance, produced a greater effect even than the contraction of the muscles. But, besides being separated from each other, the fractured portion of bone undergo a displacement of another kind: they are tilted forwards so that the anterior edges of the fractured surfaces are made widely separated than the posterior. This obliquity does not affect both pieces to the same extent, but is much more marked in the lower than in the upper. M. Malgaine believes this is principally due to the slow contraction of the igamentum patellæ, the under fibres of which being longer than the others, undergo a greater amount of shortening, and draw downwards the anterior surface of the lower fragment to which they adhere. *The movement is increased by any apparatus which aims at the approximation of the fragments by means of the constriction above and below the patella.*

The reason why transverse fractures of the patella do not commonly unite by callus, is *not* owing to the want of power in this bone to produce an osseous connecting substance; for, as Lanly has several times noticed, if the fragments are kept in perfect contact by means of a suitable apparatus, their bony reunion becomes so complete, that scarcely any vestige of the injury can be afterwards traced—*vertical fractures of patella readily unite by bone.*

The CHAIRMAN observed that the paper which they had just heard from Mr. Croly was a most practical one, and he would be happy to hear it discussed.

Mr. TYRRELL said he had seen several cases of fractured patella, and so far as his experience went, Mr. Croly's observation that all the ordinary methods of treatment were attended with injury was not correct. He had published a number of cases in THE MEDICAL PRESS AND CIRCULAR, where the patients suffered no permanent injury. One remarkable case was that of an old woman, who could not be kept in a recumbent position. She was obliged to sit up in bed, and to be moved about, and she suffered no injury, the union was an excellent one, although there was some small distance between the parts. As to some surgeons thinking that the injury was so often caused by muscular action, he could only say that that was not his experience. In some cases, which had come under his notice there was so much ecchymosis that it was some time before any retentive means could be put on. It would be more satisfactory if Mr. Croly's case was seen at a longer period after the treatment had ceased. The cast showed that there was an evident deformity ; there was a slight amount of depression in the centre which would go far to prove that it was not bony union ; and in the next place, it would be remarkable if perfect osseous union could take place in seventeen days. Generally, it was necessary to keep the limb under treatment for a much longer period, and considering that the patella was a bone not well suited for osseous union, the case was a remarkable one. In a translation of Dupytren, it was stated that he had been very successful in obtaining bony union by a simple provision—namely, putting on two calico bandages, and bringing the fractured patella together. It was stated that Dupytren's practice was exceptional, but Dupytren said himself that the cause of his success was the length of time he kept the bandage on. It was a curious fact that Malgaine's hooks were not employed at present in Paris, so that they were given up by the French surgeons. He did not know whether Mr. Croly had seen the gentleman lately or not.

Mr. CROLY—The cast was taken yesterday, and I saw the gentleman when it was being taken.

Mr. TYRRELL observed that ligamentous union might occur, and there might apparently be an osseous union, but this might give way when the limb was used ; so that, for some time, the surgeon should be cautious in saying that there was osseous union.

Dr. BENSON said he happened to be present when the gentleman was undergoing examination yesterday, and he was astonished at the closeness of the union.

Mr. STOKES could confirm the practical value of Malgaine's hooks. This was the second time he had seen a case of fractured patella under treatment by this method. The other instance occurred in a hospital in an obscure town in Germany. He thought that this operation had been brought into ill-deserved repute, not only in Paris, where it originated, but in other celebrated surgical schools. He had heard a two-fold objection urged against this mode of treatment by clinical teachers. One was that it produced tetanus. Another was the great pain necessarily attendant when the clamps of Malgaine were applied. As to the first of these objections—the liability to the supervention of tetanus—he was not aware of any case having been recorded in which tetanus occurred after the application of Malgaine's clamps ; and if it had it was just as likely to have been induced by the injury—the fracture of the patella—as by the application of the clamps. As to the second objection, the great pain which attended the operation, he could only speak from his observation of two cases. He visited the patient in the City of Dublin Hospital fourteen or fifteen days after the clamps had been applied. The patient was lying perfectly free from all uneasiness and pain, no evidence of any local or constitutional disturbance.

In answer to Professor HARGRAVE,

Mr. CROLY said that the patient came to hospital on Nov. 27th, and the hooks were applied on Dec. 10th.

Professor HARGRAVE—And then in seventeen days after that, union took place. If they examined the cast they would see that the union evidently was not osseous. Mr. Croly stated that the treatment of fracture of the patella had been the opprobrium of British surgery. That he (Professor Hargrave) denied. He thought the figure of eight bandage was one of the worst bandages they could apply to the fractured patella. He had had considerable practice in these cases, and he did not see the necessity for adopting the hooks. If the case was treated properly, proper bandages, &c., applied, the fractured patella would unite without difficulty. These hooks had been given up in Paris, so that they must have been found to be useless. As surgeons, their object should be to teach their pupils to apply the simplest and most efficient remedies.

Mr. CROLY, in reply, said with regard to Mr. Tyrrell's objection as to muscular action causing the fracture, he had merely stated the opinion of English and French surgeons. He had seen a great many fractures of the patella, and in some instances he thought it had been caused by muscular action. He was of opinion, that when a man slipped backwards he fractured the patella first, and fell afterwards. He knew an instance of a man having fractured the patella who never hit the ground at all. He did not say a word about bony union, and unless he got the patella and macerated it he could not say that bony union had taken place. He merely said that of all the cases he had seen under his own care, none had been more successful than this one. He had no idea of decrying other methods, and only brought the case forward to show that a man who could not be treated by other methods had been cured by the application of Malgaine's hooks. As to tetanus, he had seen it follow from the crack of a whip, and therefore he did not attach much weight to the objection.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR FEBRUARY, 1868.

1 Companies.	2 Date and Place of Collection.	3 Temperature in centigrade degrees.	4 Total solid impurity in 100,000 parts.	5 Organic Carbon.	6 Organic Nitrogen.	7 Nitrogen as Nitrates and Nitrites.	8 Ammonia.	9 Total Combined Nitrogen.	10 Previous Sewage Contamination (Estimated.)	11 Total Hardness.
THAMES.										
Chelsea	4TH FEBRUARY. Cab-rank, Horse Guards.	7·2 C.	30·8	·326	·052	·340	·002	·394[1]	3100	18·8
W. Middlesex	4TH FEBRUARY. Cab-rank, Portland-road.	7·2 ,,	30·0	·357	·031	·321	·002	·354	2910	18·4
Southwark and Vauxhall	4TH FEBRUARY. Barclay's Brewery.	7·7 ,,	32·2	·324	·032	·344	·001	·377	3130	19·7
Grand Junction	4TH FEBRUARY. Cab-rank, Woodstock-street.	5·8 ,,	32·6	·329	·055	·343	·001	·399	3120	21·1
Lambeth	4TH FEBRUARY. Cab-rank, Lambeth-road.	7·2 ,,	31·2	·360	·045	·310	·001	·356	2790	18·5
OTHER SOURCES.										
New River	4TH FEBRUARY. Cab-rank, Tottenham-Ct.-Rd.	6·6 ,,	30·8	·217	·026	·355	·001	·382	3240	20·5
E. London	5TH FEBRUARY. Slater's Lampblack Works, Old Ford-road.	7·2 ,,	34·4	·272	·037	·370	·003	·410	3400	20·5
Kent	7TH FEBRUARY. Deptford Railway Station.	11·6 ,,	59·2	·081	·013	·564	·001	·578	5330	30·0
Loch Katrine	FEBRUARY, 1867. Glasgow.		3·28	·256	·008	·031	·002	·041	0	0·3
Lancaster	SEPTEMBER. Lancaster.		3·54	·157	·001	·036	·001	·038	50	0·1
Manchester	NOVEMBER. Manchester.		6·8	·242	·026	·001	·001	·028	0	2·7
Leicester	NOVEMBER. Leicester.		23·7	·506	·020	·001	·001	·022	0	13·4
Preston	DECEMBER. Preston.		14·7	·515	·040	·001	·003	·044	0	6·7
Worthing	NOVEMBER. Worthing.		36·7	·162	·000	·426	·000	·426	3940	23·8

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by waters supplied to the towns of Lancaster, Manchester, Leicester, Preston, and Worthing, when submitted to the same analytical processes. The numbers in columns 4, 5, 6, 7, 8, 9, 10, and 11 all relate to 100,000 parts of the waters. The table is to be read thus: the Chelsea Company's water collected on 4th February, at the Horse Guards cab-rank had a temperature of 7·2 C.; 100,000 lbs. of it contained 30·8 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·326 lb. of carbon and ·052 lb. nitrogen. This solid impurity also contained ·340 lb. of nitrogen in the form of nitrates and nitrites, besides ·002 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·394 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 3100 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames and its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been converted into comparatively innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 18·8 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The waters delivered by the New River, East London, and Kent Companies were clear and transparent, but with the exception of the West Middlesex, all the companies drawing their supply from the Thames were delivering imperfectly-filtered water on the day when the samples were taken. The Lambeth Company's water was so muddy that brightly-illuminated objects could not be seen through a stratum of it twelve inches deep. The Chelsea Com-

1 In the last month's report, through a clerical error, the total combined nitrogen in the Chelsea Company's water was given as ·339 instead of ·398.

pany's water was but little better in this respect, and the supply of both companies was, on this ground alone, entirely unfit for domestic use. The water delivered by the Southwark and Grand Junction Companies was only slightly turbid. The organic matter contained in all the samples of water, except those of the West Middlesex and Southwark Companies, was highly nitrogenised, and therefore probably of animal origin to a considerable extent. The condition of the Kent Company's water, delivered at the Deptford Railway Station on the 7th instant, presented remarkable peculiarities. It contained the very large amount of 59·2 parts of solid impurity in 100,000 parts of the water, 42 parts being the maximum, and 39·3 the mean amount observed in this company's water during the year 1867. Of the above 59·2 parts, no less than 14·7 were common salt, the occurrence of which in such quantity is difficult to account for, except on the supposition that the Company's wells have some connection either with the sea or the brackish reaches of the Thames. The previous sewage contamination was also higher than that observed on any previous occasion.

For the first time since February, 1867, the East London Company's water exceeds that of the New River Company in previous sewage contamination.

ROYAL COLLEGE OF CHEMISTRY,
London, Feb. 29, 1868.

Correspondence.

DR. LETHEBY'S LECTURE ON FOOD.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—With reference to Mr. R. Griffith's (Ch. M.) futile attempts to trace inconsistency in Dr. Letheby's admirable Lectures on Food, I would remark that although I am well aware how useless it is to try to reason with people who commence their arguments by espousing preconceived ideas, and dogmatically taking for granted what they ought first to prove, yet I would ask what Mr. Griffith really intends to convey in his most obscure letter, in your issue of February 26. When he states that "everything which is not food, except air and water, is a foreign body or poison to the animal economy, and therefore injurious to it," am I right in assuming that he means that every medicine which is not assimilated is not only inert but injurious to the animal economy? Should I have, by a happy hit, interpreted his meaning aright, I wish he would for the sake of our Profession furnish proofs, and not simple assertions, of this newly discovered theory.—Believe me, dear sir, yours very truly, A. M., M.D.

A SUBSCRIBER'S PROTEST.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As a subscriber of many years' standing to your excellent journal, I beg to protest against the continued occupation of your space, to the extent of several columns, by the unpaid for advertisements of the so-called "Ladies' Medical College," in the form of letters signed by one of the officials of that anomalous institution—a Dr. Edmunds. I also protest against the insertion of long letters filled with offensive vituperation of a most eminent member of our profession, and varied only by an extremely uninteresting record of Dr. Edmund's personal squabbles with his professional brethren in behalf of the institution with which he is connected.

I have no personal acquaintance with any of the gentlemen engaged in this dispute, but if the facts be as stated, there can, I think, be no doubt that Dr. Eastlake has been very badly treated, and that no medical man, with a vestige of self-respect, could have acted otherwise than he has done.—I have the honour to be, sir, your obedient servant,

A DUBLIN SUBSCRIBER.

THE captain and several of the crew of Her Majesty's frigate *Arethusa* have been attacked with small-pox and scarlatina, but are now doing well. The ship is being disinfected.

HOSPITAL APPOINTMENTS IN DUBLIN.

THE appointment of Mr. Butcher, as Auxiliary-surgeon to Sir Patrick Dun's Hospital, to which we adverted last week, was necessarily followed, under the recent regulation of the Board of Trinity College and the College of Physicians against plurality, by the resignation of that gentleman's connection with Mercer's Hospital. In strict rule the vacation of the surgeon's connection with Mercer's Hospital ought to have preceded his election to Sir Patrick Dun's; but in this instance that course was not adopted owing to circumstances which as they have been already made public elsewhere, we feel ourselves called upon to detail.

We understand that on the rumour of Mr. Butcher's retirement from Mercer's Hospital, a difference of opinion arose as to the propriety of appointing to the vacancy, it being held by a majority of the surgical staff that that department was already sufficiently provided for, and that if the vacancy were to be filled at all, the financial arguments hitherto adopted were objectionable. Now, the special Act of Parliament under which the Hospital is regulated declares that the physicians and surgeons, so long as they shall serve without fee or reward, may *add* to their number by the vote of a majority of two-thirds. If Mr. Butcher had vacated his seat previous to the election of the incoming surgeon, the Board would have been divided three to two, or a majority of less than two-thirds, and the appointment could not have been made. Mr. Butcher, however, having retained his position and his vote, a *fifth* surgeon was duly elected, and the number at once reduced to four by his resignation.

By this election Mr. B. F. M'Dowell, Lecturer in Botany in the Ledwich School of Medicine, becomes surgeon to the Hospital. Mr. M'Dowell is a Bachelor of Medicine of the University and a Licentiate of the Royal College of Surgeons, and the King's and Queen's College of Physicians, and an influential private teacher in Botany, Materia Medica and Pharmacy.

We understand also that the selection of Mr. Wharton as Surgical Examiner in the University of Dublin has not yet been officially declared, although we believe our anticipation of it will prove to be accurate.

Medical News.

THE LATE SIR D. BREWSTER.—It has been decided to erect a statue to Sir David in Edinburgh. Last week a meeting in the Royal Society's Rooms was called for the purpose of considering the propriety of commemorating his services in the cause of science. Sir David Baxter, of Kilmaron, was called to the chair; and among others present were Lord Neaves, Sir David Dundas, Sir James Y. Simpson, Sir George Harvey, Professor Playfair, Professor Balfour, Professor Tait, Dr. Alexander Wood, Dr. Andrew Wood, Dr. Keith Johnston, Mr. Milne Horne, of Wedderburn, Mr. Bryce, architect, Mr. Francis Brown Douglas, &c. It was unanimously resolved, on the motion of Lord Neaves, seconded by Dr. Andrew Wood, that a monument, taking the form of a statue, to Sir David Brewster, should be erected in some public and conspicuous part of Edinburgh. A committee was appointed to carry out the resolution. Sir James Y. Simpson has received the following letter from the Prime Minister:—"10, Downing-street, Whitehall, March 5, 1868. Dear Sir James,—I have much gratification in informing you that Her Majesty has been graciously pleased to grant a pension of £200 per annum to the widow of Sir David Brewster, in recognition of his eminent services to science. I have the honour to remain, dear Sir James, yours faithfully, B. DISRAELI. Sir James Simpson, M.D."

ESTIMATE FOR GREENWICH HOSPITAL AND SCHOOL.—The estimate for Greenwich Hospital and School for the year 1868-69 has just been published. The total for the year is £127,608, against £128,635 for the year 1867-68, and the net decrease is, therefore, £1027. Comparing the two years it appears that a considerable saving was effected in "salaries and allowances, household, and infirmary,"—"repairs and maintenance of buildings"—"provisions, clothing, bedding, and stores." The gross decrease was counterbalanced by an increase of £6620 in "pensions to seamen," and other smaller increases.

VITAL STATISTICS OF PARIS.—M. Haussman has just issued the returns for 1867, which shows that the total mortality of the City of Paris during the year was 43,415. The

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 25, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S THIRD LECTURE ON FOOD.

CONSTRUCTION OF DIETARIES: PREPARATION AND CULINARY TREATMENT OF FOODS.

The construction of dietaries involves a variety of considerations, as—1st. The determination of the real wants of the body under different circumstances of age, sex, constitution, labour and climate; 2nd. A proper selection of food, as regards quality, nutritive power, appetizing property, digestibility and price; 3rd. The association of foods in such wise as not to offend the appetite or burden the digestive powers; 4th. A right treatment of them by cooking, &c., so as to render them most useful to the system; and 5th. A just distribution of the daily diet in appropriate meals.

As regards the first question—namely, the determination of the actual dietetical wants of the body—it may be answered from two sets of facts, as those which pertain to the minimum quantities of food capable of being used without loss of health or bodily vigour, and those which relate to the amounts of carbon and nitrogen exhaled from the body during different conditions of life.

In a general way it may be said that a healthy vigorous man consumes from 700 to 800 lbs. of solid food (dry) in a year. This amounts to about 2 lbs. of dry, solid matter daily; and the quantity of water (free and combined) is about 5½ lbs. daily.

Pursuing the inquiry a little farther, we find that a man cannot live on a punishment prison diet of 1 lb. of bread a-day, with water; for in three days he will lose about 3 lbs. in weight, and will show signs of commencing starvation. This diet contains 1·3 oz. of nitrogenous matter and 8·42 of carbonaceous (= 1995 grains of carbon, and 90 of nitrogen). Even the poor needle-women of London can only just exist in a state of feeble vitality, with an average diet of 1½ lbs. of bread a-day, with about 1 oz. of dripping. This contains nearly 2 oz. of nitrogenous matter, and 14·85 of carbonaceous, calculated as starch (= 3272 grains of carbon and 135 of nitrogen). And in military prisons where as much as 3·8 oz. of nitrogenous food, and 22·2 oz. of carbonaceous (= 6925 grains of carbon, and 256 of nitrogen), are supplied daily to prisoners for short terms of confinement, they frequently lose weight and give evidence of decay; so that for longer periods of imprisonment it is found necessary to increase the diet to 4·7 oz. of plastic matter, and 27·8 of respiratory (=8647 grains of carbon, and 317 of nitrogen): in fact, according to Dr. Christison, the men confined in the prison at Perth cannot even do the work of pumping the water for the prison on a daily diet of 6 oz. of plastic matter, and 25 of respiratory (= 7239 grains of carbon, and 405 of nitrogen).

Again, Dr. Edward Smith found in his inquiries into the dietaries of adult male operatives of Lancashire and Cheshire, during the cotton famine, and also into those of the low-fed operatives of England, that the daily amount of food only barely sufficient for existence must contain 2·84 oz. of nitrogenous matter, and 19·25 of carbonaceous (= 4300 grains of carbon and 200 of nitrogen). These are contained in 2 lbs. 3 oz. of bread, which is regarded as a famine diet. The farm labourers of England consume daily an average of 3·18 oz. of plastic matter, and 26·01 of respiratory. In Scotland, Wales, and Ireland, the amounts are somewhat larger, as will be apparent from this diagram.

AVERAGE DAILY DIET OF FARM-LABOURERS IN THE UNITED KINGDOM.

	Dry Nitrogenous matter.		Dry Carbonaceous matter.		Carbon.		Nitrogen.
	oz.		oz.		grs.		grs.
In England ...	3·18	...	26·01	=	5810	...	228
In Wales ...	4·12	...	31·22	=	6901	...	290
In Scotland ...	4·76	...	31·34	=	6297	...	335
In Ireland ...	4·94	...	28·73	=	6195	...	348
Average of all	4·25	...	29·07	=	6477	...	300

These are the results of inquiries into the dietaries of many hundreds of families, the results being computed as for adults; but it is very probable, as Dr. Smith remarks, that the nourishment obtained by the labourer himself is somewhat above the average. This, in fact, is confirmed by the more extensive investigations of Dr. Lyon Playfair, who concludes, from a large series of observations, that the following may be regarded as the average proportions of

the several constituents of food in the daily dietary of an adult man under different circumstances of existence.

Daily Diets for	Flesh former.	Fat.	Starch and Sugar.	Nitrogenous.	Carbonaceous calculated as Starch.
	oz.	oz.	oz.	oz.	oz.
Subsistence only	2·0	0·5	12·0 =	2·0	13·2
Quietude ...	2·5	1·0	42·0 =	2·5	14·4
Moderate exercise	4·2	1·8	18·7 =	4·2	22·0
Active labour	5·5	2·5	20·0 =	5·5	26·0
Hard work ...	6·5	2·5	20·0 =	6·5	26·0

These conclusions accord pretty well with the determinations of Pettenkofer and Voit, who say that an adult requires daily, when at work, 5·22 oz. of nitrogenous matter, and 22·38 of carbonaceous (calculated as starch). Taking, therefore, the mean of all these investigations, it may be said that a man requires daily the following amounts of carbonaceous and nitrogenous matter for idleness, for ordinary labour, and for active labour :—

	Nitrogenous.	Carbonaceous.	Carbon.	Nitrogen.
	oz.	oz.	grs.	grs.
Idleness ...	2·67 ...	16·83 =	3856 ...	187
Ordinary labour	4·56 ...	24·48 =	5757 ...	319
Active labour	5·81 ...	24·31 =	5837 ...	400

By pursuing the second method of inquiry, and ascertaining the wants of the body from the amounts of carbon and nitrogen exhaled and secreted, it is found that the proportion of carbon evolved as carbonic acid from the lungs of a man in health varies from 6 oz. to 13½ oz. daily, the difference being dependent on temperature, exercise, &c. Dr. Edward Smith says that it amounts

to 7·85 oz. daily while the body is quiet ;
to 9·11 do. with moderate exercise ;
to 12·19 do. with considerable labour.

And he considers that a healthy man of average weight (150 lbs.) emits 8·57 oz. of carbon from his lungs daily. This added to the quantity discharged from the skin and bowels is not less than 9·6 oz. daily (= 4200 grains) or just 28 grains per lb. of the man's weight. During light labour, he says it ranges from 9·6 oz. to 10·5, and during hard work from 12·5 to 14 oz.

The amount of nitrogen excreted as urea, &c., in the urine is also subject to great variation according to the diet and exercise. Dr. Parkes found in his experiments on two soldiers, that with an ordinary diet, and no exercise, it amounted to 2·03 grains per lb. weight of the body (= 304 grains per 150 lbs); and that with a non-nitrogenous diet and no exercise, it was 0·95 gr. per lb. weight (= 142 grains per 150 lbs.); and with the same diet and active exercise it was 2·42 grains per lb. weight (= 364 grs. per 150 lbs.)

Professor Fick and Wislicenus observed that the nitrogen secreted during an ordinary diet and no exercise, was at the rate of 1·53 grains per lb. weight (= 230 grains per 150 lbs.); and that it fell to a little less than one grain per lb. weight with a non-nitrogenous diet during the labour of ascending the Foulhorn.

The researches of the Rev. Dr. Haughton, of Dublin, have led him to conclude that an average sized man performing routine work secretes 187 grains of nitrogen as urea daily (= 1·25 grains per lb. weight) ; and Dr. Edward Smith has estimated it at from 0·93 to 1·4 grains per lb. weight—a fair average being 1·15 (= 173 grains per 150 lbs.).

The more extensive inquiries of Playfair, Ranke, Beigel, Moos, Vogel, and others, give a daily average of 171 grains of nitrogen as urea for a healthy man at rest, and 252 grains for ordinary labour.

It may, therefore, be safely concluded that with an ordinary diet, an average sized man excretes daily as urea 175 grains of nitrogen ; and during labour of a moderate description it amounts to about 250 grains. Adding to these the proportions of nitrogen excreted in other forms in the urine, and the quantities passed from the bowels, the total amounts are probably about 190 grains while at rest, and 300 grains when at routine work ; the difference, perhaps, being more dependant on the food than on the tissues of the body.

It thus appears that the proportions of carbon and nitrogen excreted correspond very closely with those contained in the diets, which experience has proved to be necessary for man's sustenance; for when the results are put into a tabular form they stand thus :—

DAILY REQUIREMENTS OF THE BODY.

		Nitrogenous Food. oz.	Carbonaceous Food. oz.	Carbon. grs.	Nitrogen. grs.
During idleness as determined	By Dietaries	2·67	16·83 =	3856	187
	By Excretions	2·78	18·47 =	4200	190
	Average	2·72	17·65 =	4028	188
Routine work as determined	By Dietaries	4·56	24·48 =	5757	319
	By Excretions	4·39	19·80 =	4813	300
	Average	4·48	22·14 =	5285	310

The first of these averages is represented by 2 lbs. 2 oz. of bread, and the second by about 3½ lbs. It appears also that the relation of the nitrogenous to the carbonaceous constituents of food should be about as 1 to 5½ or 6. These in fact are the proportions which Messrs. Lawes and Gilbert found to be best suited for fattening pigs. In milk, the proportions are as 1 to 3·6 (the butter being calculated as starch) ; and no doubt these are the right proportions for the dietaries of children. Again, it will be observed, that the relations of the nitrogen to carbon is nearly as 1 to 19 ; whereas in milk it is about as 1 to 11. Referring to table No. 4 (p. 85) it will be noticed that the proportions in bread are as 1 to 22, and in meat as 1 to 13, showing that the former requires the addition of plastic matter, and the latter of respiratory.

In preparing dietaries, however, it will perhaps be best to take a rather liberal view of the question, and, therefore, I shall adopt the conclusions of Dr. Edward Smith—that even in periods of idleness a man's daily food should contain not less than 4300 grains of carbon, with 200 of nitrogen ; and a woman's at least 3900 grains of carbon with 180 of nitrogen—these being the proportions which, in his opinion, are necessary to avert starvation diseases ; and they are represented in the case of a man's diet by 19·25 oz. of carbonaceous food, with 2·84 of nitrogenous. The diagram before you exhibits the amounts of different articles of diet capable of furnishing this quantity of nitrogenous matter, and it also shows the proportions of carbonaceous matter (calculated as starch) associated with it.

AMOUNTS OF FOOD YIELDING 200 GRAINS OF NITROGEN OR 2·84 OZ. OF PLASTIC MATTER NECESSARY FOR A MAN'S DAILY DIET.

Description of Food.		Carbonaceous matter in it.	Carbon in it.	
	oz.	oz.	grs.	
Skim-cheese ...	8·8	5·57	1290	Carbon deficient
White fish ...	24·6	5·99	1384	
Skim-milk ...	94·1	8·96	2059	
Peas	12·6	9·33	2141	
New milk ...	91·4	9·40	2160	
Lean meat ...	18·3	11·36	2629	
Oatmeal ...	22·9	17·54	4000	
Wheat-flour ...	26·7	19·28	4433	Carbon in excess
Baker's bread ...	35·6	19·28	4433	
Indian meal ...	26·0	19·83	4554	
Rye-meal ...	36·4	26·40	6046	
Barley-meal ...	45·7	34·02	7800	
Rice	45·7	34·02	7800	
Bacon ...	32·6	38·04	8714	

So that, while the first seven of these substances are deficient of carbonaceous matter (19·25 oz. being required), the last seven contain it in excess. It is, therefore, not difficult to construct a dietary from the several tables which I have placed before you; but perhaps it would interest you to know exactly what are the actual dietaries in use

among different classes of persons; and first I will direct your attention to what Dr. Edward Smith found to be the average weekly dietaries of the low-fed operatives of England, Wales, Scotland, and Ireland.

WEEKLY DIETARIES OF LOW-FED OPERATIVES.—CALCULATED AS ADULTS (E. SMITH).

Class of Labourer.	Bread Stuffs.	Potatoes.	Sugars	Fats.	Meat.	Milk.	Cheese.	Tea.	Containing		Cost.
									Carbon.	Nitrogen.	
	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Grs.	Grs.	s. d.
Needle-women, London	124·0	40·0	7·3	4·5	16·3	7·0	0·5	1·3	22900	950	2 7
Silk-weavers, Coventry	166·5	33·7	8·5	3·6	5·3	11·6	1·0	0·3	27028	1104	1 11¾
Do. do. London	158·4	43·8	8·8	5·5	11·9	4·3	0·3	0·6	48288	1165	2 8¾
Do. do. Macclesfield	138·8	26·6	6·3	3·4	3·2	41·9	0·9	0·3	27346	1177	1 8½
Kid Glovers, Yeovil	140·0	84·0	4·3	7·1	18·3	18·3	10·0	0·9	28623	1213	2 9½
Cotton-spinners, Lancashire ...	161·8	22·6	14·0	3·1	5·0	11·8	0·7	0·7	29214	1295	2 3
Hose Weavers, Derbyshire	190·4	64·0	11·0	3·9	11·9	25·0	2·2	0·4	33537	1316	2 6¼
Shoemakers, Coventry	179·8	56·0	10·0	5·8	15·8	18·0	3·3	0·8	31700	1332	2 7¾
Farm-labourer, England	196·0	96·0	7·4	5·5	16·0	32·0	5·5	0·5	40673	1594	3 0
Do. do. Wales	224·0	138·7	7.5	5·9	10·0	85·0	9 8	0·5	48354	2031	3 5¼
Do. do. Scotland	204·0	204·0	5·8	4·0	10·3	124·8	2·5	0·7	48980	2348	3 3¾
Do. do. Ireland	326·4	92·0	4·8	1·3	4·5	135·0	—	0·3	43366	2434	1 9¾
Mean of all	184·2	78·1	8·0	4·5	10·7	42·9	3·1	0·6	34167	1500	2 7¾
Average per day	26·3	11·1	1·4	0·6	1·5	6·1	0·4	0·1	4881	214	0 4½

You will see from this table that the poor needlewomen of London are the worst fed of all the operatives in the three kingdoms, for they subsist on a weekly allowance of 102·52 oz. of carbonaceous food, with 13·49 oz. nitrogenous (= 14·65 oz. carbonaceous, with 1·93 oz. nitrogenous daily), while the farm-labourers of Ireland are, as regards the real nutritive value of their food, the best-fed of the lower operative classes. But it will also be noticed that the cost of the weekly dietary of the Irish labourer is only 1s. 9¾d. per week, while that of the needlewoman is 2s. 7d.—the latter feeding chiefly on bread, bacon and tea, which are expensive foods, while the former consumes potatoes, milk, and Indian meal—foods which yield more nutriment for their money value than the more expensive foods of the English, Welsh, and Scotch labourers.

And now we will contrast the dietaries of the poorer classes of operatives with those of better-fed persons, as soldiers, sailors, navigators, &c.; and for this purpose I shall avail myself of the accurate returns obtained and published by Dr. Lyon Playfair.

DAILY DIETARIES OF WELL-FED OPERATIVES (PLAYFAIR).

Class of Labourer.	Flesh formers.	Fats.	Starch and Sugar.	Containing		Containing	
				Carbonaceous.	Nitrogenous.	Carbon.	Nitrogen.
	Oz.	Oz.	Oz.	Oz.	Oz.	Grs.	Grs.
Fully-fed Tailors ...	4·61	1·37	18·47	21·64	4·61	5136	325
Soldiers in Peace ...	4·22	1·85	18·69	22·06	4·22	5246	297
Royal Engineers (work)	5·08	2·91	22·22	29·38	5·08	6494	358
Soldiers in War	5·41	2·41	17·92	23·48	5·41	5561	381
English Sailor	5·00	2·57	14·39	20·40	5·00	4834	252
French do. ...	5·74	1·32	23·60	26·70	5·74	6379	405
Hard-worked Weavers ...	5·33	1·53	21·89	25·42	5·33	6020	375
English Navvy (Crimea) ...	5·73	3·27	13·21	21·06	5·73	5014	404
English Navvy (Railway)...	6·84	3·82	27·81	37·08	6·84	8295	482
Blacksmiths...	6·20	2·50	23·50	29 50	6·20	6864	437
Prize-fighters (training)...	9 80	3·10	3·27	10·70	9·80	4366	690
Mean of all ...	5·81	2·42	18·63	24·31	5·81	5837	400
Do. of low-fed Operatives...	3·04	0·64	21·18	22·78	3·04	4881	214

In all these cases the carbonaceous matters of the food are estimated as starch; and I may state that the soldiers' dietary, when at peace, is calculated from the rations of the English, French, Prussian, and Austrian service; and when at war, it is derived from the actual dietaries of European and American soldiers during recent wars.

It would be interesting, if time permitted, to compare these dietaries with the dietaries of hospitals, prisons, workhouses, and lunatic asylums; for we should then perceive not merely how greatly they vary in their nutritive value, but also how little attention is paid to the principles which ought to guide our public authorities in the construction of public dietaries. In the prisons of England, Scotland, and Ireland, the several dietaries for short terms of imprisonment, as well as for longer periods, and for hard labour, vary respectively to so great an extent as to furnish an inducement for the commission of crime in certain districts rather than in others, because of the richness of the prison rations; and in all cases the dietaries of prisons are so largely in excess of those of the union, that in times of distress they offer encouragement for misdemeanour, in order that the prison may be reached in preference to the workhouse; in short, while the day's ration of an unfortunate inmate of a union contains only about 17 oz. of dry nutritious matter, that of a destitute debtor contains 19·4 oz., and that of a convict 22 oz.; moreover, a prisoner confined for more than a month without hard labour in the jails of England, Scotland, and Ireland, would have 18·8 oz., 22·4, and 23·9 of dry nutriment respectively; the average rations for hard work containing about 21·7 oz., 31·5, and 25·6 in the prisons of the three countries.

Dr. Edward Smith has drawn attention to the serious want of uniformity in the dietaries of the unions of his district, and has urged the workhouse authorities to improve them. He has also submitted to the Privy Council tables of dietaries, which are well suited to meet the requirements of the system at the lowest money cost. Here are a few of them, which may perhaps prove useful to those who are engaged in the benevolent work of supplying food to the poor in times of distress; and you will perceive that at various sums, from about two shillings to three shillings a-week per adult, very substantial rations may be provided.—(See Table next page.)

The dietaries of women should be about 1-10th less than those of men in the case of in-door operatives, but they ought to be from 1-3rd to 1-4th less than the larger dietaries of men engaged in out-door labour.

As regards the dietaries of children it may be stated generally that the chief part of their food should be milk. Up to the age of nine or ten months it should be, if possible,

DIETARIES TO FURNISH AS NEARLY AS POSSIBLE 30,100 GRAINS OF CARBON, AND 1400 GRAINS OF NITROGEN PER MAN WEEKLY—WOMEN TAKE ONE-TENTH LESS (SMITH).

Cost.	1s. 11¾d.	2s. 0½d.	2s. 3½d.	2s. 4½d.	2s. 6d.	2s. 7½d.	2s. 8½d.	2s. 10½d.	3s. 1½d.	3s. 3½d.
	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.
Bread	144	128	160	160	128	160	160	160	192	160
Flour for Dumplings ...	—	—	—	—	—	—	—	16	16	8
Oatmeal	16	32	16	32	32	16	16	16	—	8
Peas	—	—	—	—	12	6	—	—	—	—
Rice	—	—	16	—	—	—	16	—	8	8
Sugar	—	4	4	—	4	4	4	4	8	8
Treacle	—	16	8	8	8	—	8	12	8	8
Butter	—	—	—	—	2	—	—	2	—	12
Dripping	—	—	4	—	—	4	4	—	4	—
Suet	—	—	—	—	—	—	—	4	4	2
Meat without Bone ...	8	8	—	8	8	8	16	12	8	24
Herrings	—	—	—	—	4	—	—	—	—	—
Bacon	—	—	—	8	4	8	—	—	8	—
Skimmed Milk	70	140	60	70	120	120	70	120	70	100
Buttermilk	60	—	80	—	—	—	60	—	60	—
Tea	—	—	—	—	—	0·5	—	—	0·5	0·5
Coffee and Chicory ...	—	2	2	—	1	1	2	2	1	1
	Grs.	Grs.	Grs.	Grs.	Grs.	Grs.	Grs.	Grs.	Grs.	Grs.
Nutritive values. { Carbon	28,031	29,748	33,552	34,935	32,998	33,248	36,499	36,402	41,519	36,391
Nitrogen	1,409	1,291	1,511	1,548	1,859	1,609	1,674	1,638	1,768	1,620

the milk of woman, which is richer in sugar than cow's milk, and much less rich in caseine; failing this, however, asses milk is a good substitute, as it contains nearly the same amount of sugar and caseine as human milk. MM. O. Henri and Chevalier have given these as the properties of the several constituents in 100 parts of the milk of different animals.

	Asses milk.	Woman's milk.	Cow's milk.	Goat's milk.	Ewe's milk.
Caseine ...	1·81	1·52	4·48	4·02	4·50
Butter ...	0·11	3·55	3·13	3·32	4·20
Sugar of milk	6·08	6·50	4·77	5·28	5·00
Various salts	0·34	0·45	0·60	0·58	0 68
Total solids	8·35	12·02	12·98	13·20	14·38
Water ...	91·65	87·98	87·02	86·80	85·62
Total	100·00	100·00	100·00	100·00	100·00

Cow's milk, therefore, diluted with about one-third its bulk of water, and sweetened with sugar, may be given to children; and up to nine or ten months no other food should be administered, for infants have not the power of digesting farinaceous or fibrinous substances. A child may take from two to three pints of milk thus diluted daily. After ten months, and to about twenty months, farinaceous matters may be mixed in gradually increasing quantities with the milk; and they should be well cooked by first baking them, and then thoroughly dissolving them by boiling. After this age, and up to the third year, the quantity of well-cooked farinaceous matters may be still further increased, and given as puddings with a little egg. Bread and butter may also be eaten, and towards the end of the time the child will digest well-boiled potatoe, with a little gravy of meat. From the third to the fifth year a little meat may also be given, and at the end of the ninth year it may partake of the usual food of the family; but all along it should make use of a large proportion of milk in the various forms of bread and milk, or milk puddings with eggs. About the tenth year a child will require about half as much food as a woman; and at the fourteenth year it will eat quite as much as a woman; in fact, the proportions of food required by the child is much greater per pound weight of the body than that of adults, because it has to form its tissues, and build up its several structures. Dr. Edward Smith calculates that the proportions of carbon and nitrogen in the daily food at different ages should be about as follows:—

DAILY PROPORTIONS OF CARBON AND NITROGEN IN THE FOOD AT DIFFERENT AGES, PER LB. WEIGHT OF THE BODY.

	Carbon. grs.	Nitrogen. grs.
In infancy	69	6·78
At ten years of age ...	48	2·81
At sixteen do. do. ...	30	2·16
At adult life ...	23	1·04
In middle age ...	25	1·13

So that for its weight the infant requires three times as much carbonaceous food, and six times as much nitrogenous as an adult.

The construction of dietaries for particular purposes, as for training, for developing muscular tissue, for producing fat, or for reducing it, is beyond the scope of these lectures; but it may generally be said that, as in training, the object is to form muscular tissue, to give it great endurance of action, and at the same time to reduce the weight of the body, it is accomplished by the use of nitrogenous food with but little fat or farinaceous matter, and as little fluid as possible—so that muscular tissue may take the place of fat and water; and by constant exercise the endurance and strength of the muscular tissue is increased. King, in training, is said to have taken for his breakfast two lean mutton-chops, somewhat under-done, with dry toast or stale bread, and a single cup of tea without sugar; for dinner 1 lb. or 1¼ lb. of beef or mutton, with toast or stale bread, and very little potatoes or other vegetable, and half a-pint of old ale, or a glass or two of sherry; for tea a single cup of unsweetened tea, with an egg and some dry toast; and for supper half a-pint of oatmeal porridge or half a-pint of old ale. The effect of this is to produce only a short-lived state of effectiveness, for carried a little beyond the appointed time, it leads to disease; and even after the trial, there is often, as in the case of Heenan, terrible prostration of the system, and a necessity for returning immediately to an ordinary diet.

Foremost among the foods for developing fatty tissue are fats, as fat of meat, butter, cream, &c.; next to these are farinaceous matters, as arrow-root, starches, and the various meals; and after these are sugar, alcohol, &c.; so that in an attempt to reduce the bulk of the body, all of them, but especially the first, should be but sparingly used. Conversely, however, the use of fatty and farinaceous foods has a tendency to produce fat, and so also with fermented liquids, as beer and porter—the last having a high character for its capabilities of forming milk, when drank by nursing women.—(To be continued.)

LECTURES ON VENEREAL DISEASES
DELIVERED IN
DR. STEEVENS' HOSPITAL.

LECTURE III.

By ROBERT McDONNELL, M.D., F.R.S.,
ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

(Continued from page 242.)

8TH. Successive relays of symptoms. This aspect of syphilis in which its tendency to return again and again is shown, has been misnamed relapse. It is, in truth, no evidence of relapse, but evidence of a natural tendency in the complaint not to die out at once, but to die out gradually, making itself visible in a succession of outbreaks at intervals of some weeks, and each often slighter than that which has gone before.

If, however, you find this line of progress is departed from—if the second and third crops of eruption follow each other quickly, and each is worse than that which has succeeded it—we have in this the most important of all indications for a specific treatment. "If," says Diday, "a roseolar eruption at first has been succeeded by a squamous eruption for the second crop, the prognosis is altogether different from what it would be if the crop succeeding the first consisted of lesions diminishing in severity. But besides the peculiarity of each outburst, we should never lose sight of the degree of rapidity with which they follow each other."

Let us compare these two cases.

	Number of days of 2nd incubation, *i.e.*, from the appearance of the Chancre to the appearance of 1st crop of eruption.	Number of days from date of appearance of 1st crop to appearance of 2nd.	Do. from appearance of 2nd to appearance of 3rd.	Do. from 3rd to 4th crop.	Do. from 4th to appearance of 5th crop.
Case of mild Syphilis....	40 days.	38 days.	134 days.	—	—
Case of severe Syphilis....	60 days.	28 days.	20 days.	32 days.	44 days.

In the mild case, but few successive crops after longer intervals; in the severe one, more numerous crops separated by shorter intervals.

You may ask me then why I have not adopted a specific treatment in the case of Michael K——, at present in No. 2 Ward. He is 18 years of age, and was admitted on the 19th of August last, having on him a roseolar eruption. He was discharged, seemingly well, on September 23.

He was readmitted on October 21, having a papular eruption on his arms, shoulders, face, and thighs.

This got better, but on November 30, a fresh outburst took place, in which pustules were mingled with the papulæ.

Erysipelas of the head came on, and, as a consequence, the glands of the neck suppurated.

A fourth slight eruption occurred at the commencement of the present month. No mercurials have been given in this case, yet you see the patient is now every day getting better.

I tell you, gentlemen, that in this instance I have departed from my own principles, and I have done so in order to impress upon you the more the power which syphilis has of working its own cure. This is a case in which I have gone beyond my usual practice, in order to impress upon you this most important of all the truths connected with syphilis, and I have erred as regards the principles which I wish to teach you—at least, I have violated the general principles which I wish to lay down in having adopted throughout in this man's case a non-specific treatment.

Upon what grounds in the case of Matthew M—— is mercury administered, while to all appearance the disease does not appear to bear upon him so heavily as upon the other? I answer. This man is 58 years of age; he has escaped from syphilitic infection for 58 years; at that age the reparative powers are feeble as compared with younger subjects.

Men over 50 have lost that elasticity and vigour of constitution which is so important in the struggle with a morbid poison. You all know that youth is the time to get typhus over you—typhus hits very heavily after the age of 50—so does syphilis. His age alone determines a mercurial treatment in his case.

J. —— has a chancre, now healed, an indolent bubo, a roseolar eruption on the chest and abdomen, with severe rheumatic pains and slight mucous tubercles in the fauces. He is twenty-two years of age. Watch his case; you will find that he will need no specific treatment to effect his cure.

Michael B—— had scrofulous abscess in his neck in childhood, the traces of which he still bears on his neck. Having contracted syphilis he was exposed to circumstances in the highest degree likely to make it severe. He is a cab-driver on night service, he has been much exposed to the inclemency of the weather and frequent wettings; he admits that he had recourse to the consolation of spirituous drink as frequently as he could get it. Such circumstances are most likely to change a mild syphilis into one of a malignant character. Such has been his case. The syphilitic eruption was papular, abscesses formed in the neck, axilla, and at the ankle; iritis supervened. Mercurial treatment was indicated in this case.

Without going the full length of the anti-mercurialist school, I admit that in my judgment the great question as regards syphilis is, how far can we judiciously dispense with a mercurial treatment. Von Baerensprung's view coincides with that which I have arrived at; according to him, "Mercury does not cure syphilis, mercurialism causes the symptoms of the disease to disappear for a time. As long as the mercurial action lasts, syphilis remains in a latent state, reappearing afterwards by so much the more terrible in proportion as the mercurial intoxication has weakened the constitution of the patient," nevertheless, there are cases in which you must deal with the symptoms.

The cases, such as that which I have detailed at the beginning of this lecture, in which I have seen direct proof of the power of syphilis to get well without mercurial treatment, are those on which my own convictions are based. There are other facts, however, to which I may point; and I fancy some may be surprised to find proofs drawn from the writings of those who are themselves strong and decided mercurialists. Moliere's "Bourgeois Gentilhomme" was surprised to find that he had been talking prose all his life without knowing it. I am not certain that the mercurialist will be as well pleased to be told that he has been practising anti-mercurialism without knowing it. In fact, patients cured by the calomel vapour-bath are cured on anti-mercurial treatment. I am now satisfied that calomel used in this way has no specific effect. Calomel is not absorbed by the skin.

When I was a student I frequently ordered, under the direction of the late Dr. Hutton, calomel ointment for the treatment of psoriasis and lepra, not syphilitic. Those who were acquainted with the practice of this eminent surgeon, will remember that he frequently prescribed an ointment consisting of one drachm of calomel to an ounce of lard, to be freely rubbed over the surface of the body in such cases. I was struck by the fact that this mercurial preparation, so active when given internally, never mercuralized when rubbed over the skin in the form of ointment. I have known pounds of it to be used—rubbed in in ounces daily over the entire body—but I never knew a case to be salivated by it. Later, when turning my attention more to the subject which at present occupies us, I found that mercurialization did not follow even the very frequent use of the calomel vapour-bath—provided the patient did not let his head into the vapour and inhale the

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sublimated calomel. When a patient leaves the calomel vapour-bath, if we scrape the surface and examine what has been there deposited in the microscope, we find the sublimated calomel in crystals—a form ill adapted for cutaneous absorption.

Doubting that it ever was absorbed in this way, I made some experimental observations. Some ounces of finely lavigated calomel were tied in a muslin bag. Every day, after coming out of an ordinary warm bath, the patients were dusted over with the calomel in the bag, from the waist down. I have, myself, rubbed ounces of calomel over the legs, abdomen, and scrotum, leaving the patient as white as a miller with it, but I have never found it salivate.

There is a simple method by which we can test in many cases the general action of mercury on the human organism—if we apply to the skin a small disc of gold (or anything gilt) as a patient becomes salivated it becomes *silvered*. I generally use one of the discs of an old gold shirt-stud stuck to the skin in the axilla with a piece of sticking-plaster. I have not found this test give evidence of general mercurial absorption, when calomel has been freely rubbed over the lower half of the body day after day. In fact, so convinced am I that under ordinary circumstances the cutaneous absorption of calomel does not take place, that although I have no love for it, yet, so far as regards fear of mercurialisation, I should not mind spending a month up to my neck in a sack of calomel. How is it then that the calomel bath has been found to do so much good?

It is, gentlemen, simply the vapour-bath acting beneficially on a malady which tends to get well of itself. Monsieur Jourdain has been speaking prose without knowing it.

I have now, gentlemen, endeavoured to point out to you some of the general indications which will enable you to determine whether you have a severe or a mild case of syphilis to deal with. The details of treatment you must learn at the bed-side.

You must not suppose, however, that when I say that the majority of cases of syphilis may be cured without the use of mercurials that I would have you leave such cases to themselves—by no means.

If a syphilitic patient smokes and drinks beer half the day, and plays cards and drinks punch half the night, or if, like our patient B——, the cab-driver, he is exposed night after night to wet and cold, and at the same time under whiskey-punch treatment, his case will become aggravated—his disease will pass from the mild to the severe form. You must lay down strict rules for living. You must, by simple means, keep the skin, kidneys, and bowels in action. I am told, "Your cases at the Mountjoy Prison were not like ordinary cases in the outer world. You could there enforce a hygienic discipline such as cannot be enforced in general." There is, no doubt, some truth in that, yet the curing of soldiers and prisoners by an enforced hygiene proves the great power of such treatment; and it is at least your duty to put this strongly before your patient.

If he will not submit to the discipline and instructions necessary for his cure in the one way, he must be prepared to undergo a treatment which will leave him a more or less enfeebled man for the rest of his life. Let his blood be on his own head.

Original Communications.

ON THE TREATMENT OF DISEASES OF THE SKIN.

By J. L. MILTON,

SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

CHAPTER II.—SQUAMÆ.

A. Lepra and Psoriasis—Definition.—An eruption of ham or salmon-coloured, slightly elevated papules, often looking at first like scattered drops of tallow grease, gradually becoming covered with thin, extremely dry, hard white scales, often coalescing into large irregularly shaped patches, peculiarly prone to appear, among other parts, on the knees and elbows; the scales becoming very light and silvery in some cases; not accompanied or followed by vesication, ulceration, or forming of pustules. Often a good deal of itching.

The sooner the word psoriasis is entirely omitted the better. It is really in the ordinary sense of the word, a form of lepra, displaying the same features and requiring the same treatment. I have, therefore, left it out altogether, and all that is said of lepra must be understood as applying to psoriasis also. Mr. Wilson, indeed, has proposed that the latter word should be used only for the dry, scaly stage of eczema, and that lepra should be known in future as alphos. I would suggest the entire expulsion of psoriasis, and should it be considered indispensable to use a Greek word for the dry state of eczema, I would suggest that psora be retained, being classic-Greek, and a very significant word.

Treatment.—If I were to rely exclusively on my own experience, I should say that time was lost, at the beginning at any rate, in trying any remedy for this complaint except arsenic, which should be commenced at once and taken in the largest doses the patient can bear. Should the arsenic disagree with the patient the dose may be lessened, or when the stomach is considerably out of order, it may even be given up for a day or two, and a saline prescribed instead, till the arsenic can be borne again, when it is to be at once resumed. It is given in the same doses and in the same way as for lichen and prurigo, but cases may occur in which it is as well to leave the beaten path, and try what amount of this potent mineral can be supported, as nothing short of the maximum amount will do good. Dr. Moriarty[1], in a case of inveterate lepra, gave ten minim doses of Fowler's solution four times a-day, and effected a complete cure, though the disease had lasted seven years and four months.

Suppose, however, it should be absolutely necessary to suspend the arsenic, are there any other reliable remedies? I know, by experience at least, of none that can be depended upon as a substitute for the arsenic, but there are several which will improve the health, and when arsenic has done its work, will often contribute to the disappearance of the eruption.

Among these steel holds a foremost place. It may be given both when the patient is taking arsenic, and when he has suspended it; but I would always advise that the two medicines should be prescribed separately, and independently of each other. Another useful auxiliary is the iodide of potassium in tincture of bark, accompanied by small doses of biniodide of mercury; or the surgeon may prescribe the nitro-muriatic acid in doses of fifteen or twenty minims, with the same quantity of compound tincture of cinnamon, and a drachm of tincture of gentian or calumba, two or three times a-day, a little before meals. From a course of cod-liver oil, too, I have often seen the best effects; in fact, I may say, that as a rule I give it in every refractory case of lepra, and that means the great majority of cases. In my hands De Jongh's oil has so far answered the best, and most patients can take it better than the pale oil. Generally only moderate doses, such as a teaspoonful or two, two or three times a-day, are generally sufficient. The best vehicle that I know of for the oil, is ginger-wine. Finally, I may add the galium aparine, a remedy which has been highly praised by Dr. Winn. At one time, in consequence of Dr. Winn's recommendation, I gave it pretty freely, and though I never cured undoubted lepra with it, yet, certainly, the eruption, and the health too improved under its use. Mr. Hunt seems to have given it a very fair trial, he procured the fresh herb itself from the fields near Kentish Town, and had it boiled down. Considerable benefit resulted from the use of it, but in every case this was only temporary. The inspissated

1 *Mdical Times and Gazette*, 1863, Vol. 1, p. 101.

juice, when properly prepared, is so costly that it can never be generally employed among the middle and lower classes.

There are some other remedies of reputed efficiency, but of which I have no experience. Among these are dulcamara, considered by Bateman as one of the most effectual medicines in all varieties of lepra; the great dock of India or asclepias gigantea, discovered by Playfair, formerly said to be possessed of such extraordinary power over the leprosy of the East, but now considered by many writers to be totally inert; the great marsh wort of India or hydrocotyle asiatica, also said by Bazin[1] to be powerless in cutaneous disorders, though considered extremely efficacious by some writers. Psoriasis is also said to have been cured by the use of the Turkish bath, of mineral waters, such as those of Harrogate, Purton Spa, and Barèges, and to have disappeared under the influence of vaccination, tincture of cantharides, sulphur, frictions, with juniper tar, with which Bazin says he has cured cases which had resisted every kind of treatment, (toutes les medications), copaiba, and sundry other remedies.

With regard to the statements respecting the curative power of these remedies I have little to say, as I have not tried them. I assume they are made in good faith, but I confess I am sceptical as to the curative power of the medicines themselves. It is to be remembered that the complaint will sometimes disappear under the influence of medicines which impure the health, and I am strongly disposed to believe that with attention to the general condition, arsenic will cure any case likely to yield to simple means, and cure it too more quickly and certainly; indeed, it is not improbable that some of the cures said to have been effected by the use of chalybeate waters were really due to the arsenic said to have been discovered in some of these solutions.[2]

Mr. Wilson gives arsenic for this disease in the form of Fowler's solution, and the ferro arsenical mixture.[3] He begins with two or three minims of the solution, and gradually increases the quantity to five minims, beyond which he does not often go. Mr. Wilson considers the white precipitate ointment very useful in lepra.

Mr. Startin treats lepra with a great variety of remedies, relying little upon arsenic alone, but there are so many ingredients in his prescriptions that an analysis of them is difficult. Chalybeates, both internally and in baths, arseniate of mercury dissolved in hydrochloric acid, iodide of mercury and opium, persulphate of iron and hydriodic acid, arseniate of potass with aperients, such as sulphate of magnesia, constitute the chief items of his treatment. When inflammation runs high, he gives sulphate and carbonate of magnesia with colchicum and Plummer's pill; for indigestion and clay-coloured stools, liquor potassæ and mercury.

Dr. Willshire in bad lepra gives decoction of elm bark, as a vehicle for some more active remedy such as bichloride of mercury. He also gives lemon-juice and tincture of cantharides. Dr. Willshire keeps his patients on a very strict diet, forbidding meat and limiting them to milk and bread, watercresses, &c. In Mr. Hunt's practice also, an exclusively vegetable diet has sometimes been found necessary. Bazin in arthritic psoriasis, gives a tablespoonful of alkaline syrup, and some alkaline mineral water at meals. He also applies the huile de cade, and orders weak alkaline lotions with a little glycerine every three or four days; also alkaline and vapour baths. For the herpetic form, M. Bazin prescribes frictions with oil of juniper-tar, and internally arseniate of iron and soap-wort in the form of a plasm. In the young adult, when the urine shows a continued low specific gravity, and a less than normal amount of urea, Mr. Nayler finds a combination of steel and arsenic very useful. Dr. Hillier gives liquor arsenicalis in large doses, beginning with five or six minims three times a-day, and increasing the quantity to ten or twelve minims. He expresses himself as so well satisfied with the result that he has not given cantharides a fair trial. He speaks favourably of the action of the empyreumatic oils, such as the tar of the betula alba, after the scales have been removed by water dressing, and considers that the diet should not be too rich or azotised.

Hebra breaks loose in one overwhelming anathema against the drugs recommended for lepra; root and leaf, bark and flower, acids and alkalies, sulphurets and muriates, old messes and new-fangled compounds, are all included under one common ban. The anthrocokali, which was to cure every disease of the skin, is just as powerless as the Chinese ethiop's mineral, or the stibium with which of old the Greek ladies painted their eyebrows. I wish some person in this part of the world would be as plain spoken. There are positively hundreds of remedies recommended for diseases of the skin, of which it is very doubtful whether one was ever subjected to such a test as it ought to have gone through before being admitted to the privilege of having a word said in its favour; yet once it gains a footing there is little chance of getting rid of it. Year by year the journals and societies help to swell the huge aggregate of mischief, and when an honest investigator like Hebra sets fairly to work to see what will do good and what will not, he has to waste years in useless or dangerous experiments before he can make *maison pette* of all this rubbish. Mr. Wilson has arranged alphabetically upwards of fifty remedies employed in this complaint, every one of them useless or nearly so.

Hebra uses arsenic internally in all the usual modes of giving it, but he also places great reliance upon external means, the principle of which seems to be a method very like that employed by Priessnitz. The patient is packed in a wet linen sheet, over which are laid a thick doubled blanket and a waterproof covering. He is allowed to drink water freely, and is kept in this state of maceration for three or four hours. The patient is then plunged into a cold bath, and, if possible, a cold douche follows the bath, after which he goes out for a walk. This process is repeated twice in the twenty-four hours. A light diet is ordered and no spirits are allowed. Hebra also uses the potass soap, which is rubbed on each patch of lepra till a slight bleeding comes on, the tar oils, and the solution of pentasulphide of calcium recommended by Vlemingkxt, which is rubbed on like the soap till excoriation is produced. The patient after using any of those takes a bath.

Of the external treatment there is little to be said. Hot baths once or twice a-week are often serviceable, and lotions of chloride of zinc sometimes give great relief. The empyreumatic oil of birch brought from Russia may also be safely recommended. I have given the liquor carbonis detergens a fair trial, but I cannot say that I have noticed any extraordinarily beneficial effects from it. Mr. Wilson considers the white precipitate ointment very useful in this complaint. Mr. Startin prescribes, when there is much inflammation, trisnitrate of bismuth, five grains to an ounce of water, used warm; later on he employs alkaline baths and ointment of the iodide of mercury. He also makes use of the sulphur fume bath and creosote ointment. For the solitary form of lepra he employs blistering.[1] Glycerine is prescribed by some practitioners, others consider oatmeal gruel very useful. I have not noticed any very appreciable effect from either.

Diet.—A patient suffering under this complaint is sure to ask about his diet, and particularly whether there is anything he must abstain from. So far as my experience goes I should say not, so long as anything like moderation was observed. It is quite as necessary in lepra as in any other disease to abstain from all very gross food, and from everything likely to produce a sense of heat, overloading, and constipation. I would, therefore, con-

1 Lecons theoriques et cliniques, p. 79.

2 Address of the President to the British Medical Association. *Med. Times*, 1865, vol. ii., p. 149.

3 R. Vini ferri ℥iss.
Syrupi simpl.
Liq. Arsenicalis sine.
Tinct. Lavand, comp. præparat. aa. ℥ij.
Aq. Destill ℥ij. ɱ.
Coch. min. i. ter quotidie sumend.

1 *Medical Times*, vol. xiii., p. 334.

demn too much pork, beef, sausages, curry, hard adulterated beer, and coarse spirits, like new rum or whiskey. I never saw high feeding do good, and I have certainly seen cases where it clearly appeared to have aggravated the symptoms. When a patient suffers from dyspepsia, irritability of the stomach, whether induced by arsenic or otherwise, from catarrh, influenza, &c., I would restrict him to a light but not a low diet. This is nearly all I have to say on the subject, but as others attach some more, some less, importance to diet, I proceed to give a digest of some of the principal points.

Mr. Wilson[1] says nothing of diet in his chapter on "Alphos," but, in his work on "Healthy Skin," he advises as a general rule that we should look suspiciously at potted meats, sausages, game, &c., that variety at a meal should not be indulged in, and that children should have plenty of good wholesome food, and plenty of variety in it. He thinks that people who give their children invariably one kind of food or too little of it, should be looked upon as dangerous lunatics, and made to understand that sickness and deficiency of food, with too little exercise and defective ventilation, are the cause of ringworm and scalled head being so common in schools. Mr. Wilson clearly thinks M. Soyer a better judge of diet than those mischievous obstinate people who starve children because they have been told by dear mama, or have read in Buchan, that children ought always to rise from table with an appetite, and such rubbish. He has no particular views as to the efficacy of any particular kind of food in skin diseases, for the simple but rather pertinent reason that very "little is known" on the subject.

Mr. Hunt seems to think that all restrictions whatever are unnecessary, and asks why the taste for so many different kinds of food was given to man, unless it was right for him to enjoy it. The answer is very simple, for the case is not fairly put. Most likely man living in a state of nature, leading the wild but anxious life of a hunter or fisher, sheltered at night in a cave or wigwam, and seeking his food by day amid ceaseless care and danger, could eat any kind of food he was likely to find. But he is not living in a state of nature, he has elected to lead a life of restraint, and he has to bear the consequences. The advantages derived from civilization tend inevitably to induce a state of the system which requires from every person more or less self-control in respect to diet; the evils of civilization create still more imperative demands, and therefore the great mass of mankind cannot be left to the unrestricted sway of their appetites, and if control be necessary in health it is still more so in disease.

Mr. Naylor recommends a very strict diet in lepra, excluding salads, sweets, salmon, pork, and shell-fish, alcoholic, and other fermented liquors. Dr. Hillier adds coffee to the Index Expurgatorius. Dr. Neligan says that a milk-diet should, if possible, be enforced, and that when it cannot be adopted, farinaceous articles should, as far as possible, enter into its composition, fresh meat or poultry only, plainly dressed, being allowed. The views of Mr. Startin, and others, on this subject have been already given.

Mr. Hunt speaks highly of the value of exercise in this complaint, and says that "many cases have occurred in which patients who, when pursuing a sedentary life, were martyrs to lepra, became comparatively free from the disease when engaged in active occupation in the open air."

As to the results of treatment or the prognosis of the complaint, I assume it is almost unnecessary to say that, however thoroughly all traces of an attack may be removed, the disease will tend to return. At the same time, under proper treatment, a long immunity can often be secured.

FISTULA IN ANO: OPERATION.

By P. C. LITTLE, F.R.C.S.I., Etc.

THE frequency of fistula in ano has been remarked by the earliest surgical writers. In our time it is probably more general, owing to the progress of a civilization favourable to the development of diseases which often originate this distressing malady. I need scarcely instance its rarity in the open country, compared with its almost daily occurrence in populous cities and towns.

The case which I now beg to lay before your readers seems to be a good example of this morbid condition, and to possess some noteworthy features.

February 17th.—I visited Mrs. K., æt. 37, wife of a sea captain, and mother of five hearty children. She complained of general impairment of health, caused, she believed, by two small openings near the anus, discharging pus, and indisposed to heal. She had never been ill until two years passed, when she caught cold by sitting on a stone near the sea, awaiting her husband's arrival. Soon after that she experienced a throbbing and uncomfortable feeling at the lower part of the bowel. During defecation, the latter protruded; occasionally became very painful; and at length remained in small nodules external to the anal outlet. About a year ago, she discovered a large swelling, with tenderness on pressure, towards the left side of the anus; and when at stool thought something scraped the bowel inside. Within the last two months, the tumour rapidly increased in size, pointed externally, and discharged a large quantity of fetid purulent matter. The abscess healed rapidly, but two pin-hole apertures remained open ever since. She now imagines there is constantly a splinter, or little bone, sticking in the rectum; complains of weakness, loss of flesh, appetite, rest, and spirits; inability to walk or sit with any comfort. She has not much thirst, no night sweats, and during her illness has only had one rigor, which preceded the evacuation of the matter. Her features are expressive of pain; her manner agitated; pulse weak and nervous, 78; bowels confined; heart, lungs, and other vital organs healthful. There is not any hereditary predisposition to disease in her family.

On examining the affected region, I observed, to the left of the anus, nearly midway between it and the tuber ischii, a dark, wrinkled, depressed patch of integument, about the size of a shilling, in the centre of which were two papillæ, nearly a half an inch apart. Slight pressure around them caused a drop or two of thin matter to exude. I passed a probe with some difficulty (the passage being narrow and tortuous) through one of the openings to the depth of about two and a-half inches, in the direction of the anterior wall of the rectum. At the same time, I introduced my left index-finger, well-oiled, into the intestine to meet the probe, which I found could move up and down in a cavity more than an inch in length on the front of the rectum.

By varying the position of the instrument and my finger, I tried to ascertain whether the fistula communicated with the gut, but I could find no opening, no papilla. I next examined the intestine with a bivalve speculum, and could discover no orifice, but noticed a good deal of congestion and hæmorrhoids above the anus, which were relieved by some bleeding caused by the introduction of the instrument.

As there did not appear to be any contra-indication, either in the condition of the patient, or from her family history, I proposed a surgical course for the permanent closure of the fistula, to which she at once assented. I therefore prescribed an oil-draught at bed-time, and a large warm-water enema early in the morning.

Next day, the 18th, I found her in a favourable condition for the operation, which I accomplished in this way: The patient lying in bed on her left side, her knees well flexed on her abdomen, and nates advanced towards me, I introduced my left index-finger, oiled, into the rectum, where I kept it. By the aid of her husband, I then completely suspended, with anæsthetic spray, the sensibility of the parts to be incised. I next laid the two sinuses into one, and quickly passed through the tortuous canal a bent director up towards the apex of the cavity, where I felt it with my finger. After that I cautiously slid along the instrument a curved blunt-pointed bistoury (Weiss'), and with one steady sweep cut through all the parts between the sinus and the anus. In this step I met with a diffi-

1 Diseases of the Skin. Sixth Edition.

culty. The gut was particularly tough and sensitive. I could not penetrate it with my nail on one side and the point of the director on the other. However, I attained my object by dropping my nail below the point of the bistoury to its cutting surface, where, by pressing gently, the instrument entered the rectum, met my finger, and so I divided all the structures without the least pain. Smart hæmorrhage ensued. I tried in vain to stop it with a plug of lint and compress, which seemed rather to keep the sphincter and bleeding-vessels open, and excited an inclination to defecate. At length I effectually arrested the flow of blood by the simple application of my finger to the vessels for about ten minutes, as recommended by Sir B. Brodie. I dressed the wound lightly from the bottom with a shred of oiled lint, applied a few folds of the same material soaked in cold water over the incised parts, and a T bandage to keep all in position. I finally administered an anodyne (tr. opii. gtt. xl.) to ensure confinement of bowels, if possible, for a day or two. I advised the wet lint to be re-soaked in cold water when necessary, and replaced; low diet, no stimulants.

I do not deem it necessary to give the daily record of the case. It may be sufficient to state that, the subsequent treatment consisted chiefly in linseed poultices for a few days; afterwards local stimulants; strict confinement to bed for about a fortnight; and regulation of the bowels.

I had daily to encounter two obstacles to recovery,—a strong indisposition of the sinus to cicatrize, and a tendency of the fresh cut surfaces to heal too quickly. Sluggishness of the fistulous track constitutes, according to Brodie, Pott, Crampton, and Roux, the principal difficulty in the after-management of such cases. Many approve of lunar caustic lightly applied along the sinus, as being the best means of promoting speedy and uniform healing. I am happy, also, to testify to its great benefit. In this case it hastened the desired union, and contributed to the restoration of the patient, which was completely accomplished in three weeks, without leaving incontinence of fæces or mucus, very generally sequences of this operation. The sphincter had regained its proper tonicity. The external piles had disappeared, and on digital examination I could discover no internal congestion of the rectum.

It has long been observed that fistula in ano usually coexists with, or is a consequence of some other disorder. Thus, it is frequently present with phthisis pulmonalis, tabes mesenterica, or scrofula; scirrhus of the rectum, or a general cancerous diathesis; cirrhosis, or obstructive disease of the liver; tumours pressing upon the portal, or hæmorrhoidal veins; constipation, uncomplicated piles, cold, or accident. In connection with any of the four last conditions, fistula in ano may be radically cured; whereas, associated with the previously-named constitutional or organic diseases, it scarcely admits of treatment, except palliative, applied locally or to the primary lesion. In many such instances the fistula is useful in the economy, as a diverticulum for abnormal blood-products, which otherwise might assail vital organs, just as an issue in the neck prevents cerebral congestion. Experience has proved that in those cases operation is unjustifiable, often hastens death; and, as regards the surgeon, would argue a want of knowledge of the pathology of this disease.

The co-existence of piles with fistula is very usual, and necessitates careful inquiry into the cause of the former antecedent to any surgical procedure to remedy the latter. If the piles be the reflection of disease affecting the portal or hepatic systems, the propriety of our operative interference with the fistula would be, indeed, questionable. If, however, the congestion of the hæmorrhoidal veins arise merely from excessive tonicity of the sphincter ani muscle, there could be no objection, *cæteris paribus*, to an operation for radical cure of the sinus, as adopted in the present case.

Here it appeared that the exciting cause of the piles and of the fistula was the same—cold, and that the active agent in the production of both diseases was the sphincter compressing the anal vessels which permeate it. The results of such constriction were—on the one side piles, and on the other ischio-rectal abscess, ending in fistula. The latter, like all fistulæ in the same region, had two great impediments to its closing up,—the ever-active sphincter, and the mucus character which the sinus assumes, as remarked in the *Quarterly Journal of Foreign Medicine*, &c., No. 8. The principles of treatment were therefore to effect—firstly, a temporary suspension of the sphincter's function; and secondly, the reduction to a healthy healing condition of the whole surface thus laid open. The first point was completely achieved by the knife, the second by the after-management already described.

Hospital Reports.

CITY OF LONDON DISPENSARY.

EPILEPSY CAUSED BY ATRESIA VAGINAE.

THERE is now a woman (36) under Dr. Oppert's care at the City Dispensary, who suffers from epileptic fits at the time of menstruation, these fits being the consequence of almost complete atresia vaginae. The fits are preceded by an aura, which consists in uneasiness first in the legs, rising afterwards to the chest, and giddiness. The latter lasts for some time, at last the patient completely loses consciousness, has foaming of the mouth, screams, and the limbs are violently shaken by convulsions. This often lasts only for ten minutes, and afterwards she suffers again from giddiness. The fits troubled the patient for the last eight months. She is thin, pale, has had no syphilis, and is otherwise healthy.

The vagina forms a *cul de sac*, and the finger can be only introduced as far as a good half inch, the mucous membrane easily bleeds. There is a very small opening left, through which a little blood oozes at the time of the monthly period.

The patient has been twice operated upon, the last time in Chelsea about nine months ago. How long the abnormal state of the vagina exists, cannot be clearly remembered, but it got gradually worse, especially after the operations. The patient is, therefore, not disposed to any further operations.

At present she takes only mistura menthæ.

Dr. Oppert thinks the case unique and very important, as a proof that epilepsy may be caused by cerebral conjestion, whereas many ascribe eplieptic fits exclusively to cerebral anæmia. As regards the treatment, an operation does not seem advisable even if it were permitted. But this case would be relieved by abstractions of blood at the critical times, combined with cooling medicines. In this way the time might be tided over till the climacterical period is reached. Dilatation by using a proper bougie, or Holt's dilator, will probably be tried.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL PRACTICE.

(Continued from page 206.)

Diseases of the Eye.—We find that of diseases of the eye fifty-five cases were admitted. We select a case entered as choroiditis. It occurred in a man who was suffering from secondary syphilis. There were several specific ulcerations on the legs. He complained of shooting pain on both sides of the head. Vision with the right eye was indistinct, and both pupils were irregular. A sclerotic zone surrounded both corneæ, that around the right being the most distinct. The globe was tense, and its mediæ were rather hazy. He was ordered syrup of the iodide of iron and cod-liver oil, and at night a pill composed of calomel and extract of hyoscyamus. Under this treatment the ulcers commenced healing, and he lost the pain in the head; but his vision was not improved, and "falling lights" occasionally appeared to descend to the ground from the outer angle of the right eye. When examined with the ophthalmoscope the right optic disc was found to be indistinct at its upper and

lower parts. The choroidal glow was less distinct than it should have been, and the choroid pigment was visible in various parts. The indistinctness seemed to depend upon œdema of, and slight deposit in, the connective tissue of the optic disc and neighbouring retina. A calomel and opium pill was now administered night and morning, and the zone disappeared from the left eye, and became less marked in the right, whilst the "falling lights" appeared less frequently. The eyeball became less tense, the mediæ clearer, and the ophthalmoscope showed considerable absorption of the deposit near the optic disc. He was discharged in an improved state of health, with the sight of the right eye returning. He could see objects on the opposite side of the ward, though he was unable to distinguish faces.

Diseases of the Organs of Digestion.—A case of abscess in the mouth, from caries of the teeth, proved fatal from frequent hæmorrhage. The patient had been suffering from alveolar abscess for some months, and the suppuration extended to the neck, where an abscess had been opened. When admitted, the whole of the right side of the neck was infiltrated with pus, and there were two discharging sinuses. The side of the face, as high as the zygomatic arch, was much swollen and indurated. He went on well for more than two months, when he suddenly had an attack of severe hæmorrhage from the mouth. Styptics were employed, but the bleeding frequently recurred, and he died in eleven days.

Eight cases are entered as ulceration of mucous membrane. One of these terminated fatally, and proved to be a case of diphtheria. The history was that of sore-throat for a month, but without evidence of syphilis. The left side of the soft palate was in a state of foul ulceration, surrounded by red sharply-defined edges. The right side of the palate was commencing to ulcerate, and the uvula was red and swollen. There was also ulceration at the back of the pharynx, as evidenced by the presence of suppuration. There was also pain during deglutition. Calomel-vapour was applied to the throat, and he went on well for about three weeks, when he became very low, and the throat very foul. He was ordered brandy, with a mixture of chlorate of potash, ammonia, opium, and bark; but he died soon after. When examined the body was in good condition. The whole of the right lung felt solid and heavy, and was in a state of congestive pneumonia. The bronchial tubes were full of exudation, even to their minutest ramifications. In the largest bronchi this exudation formed a complete cast to the tube. It was also found, though to a less extent, in the trachea and larynx. The left lung was natural, but congested. The soft palate, epiglottis, and fauces were covered with the same exudation as was found in the bronchi. On the soft palate there was the cicatrix of an old ulceration.

Thirty-nine cases of hernia were admitted, twenty strangulated, ten reducible, and nine irreducible. Three of the cases of strangulated intestine were reducible without operation; the gut being returned by the taxis, after the application of ice. Of the cases submitted to operation, six died. There were five cases of inguinal hernia, all of which were oblique and occurred in males. Four of these were acquired, and one was congenital. Three of these were enteroceles, and two enteroepiploceles; in one the omentum was ligatured and cut off, death resulting from peritonitis. Eleven were cases of femoral hernia; four in males, seven in females. In four cases the sac contained omentum as well as intestine, and in one omentum only; in three instances it was ligatured and cut off. There were five deaths; four due to peritonitis, and one to extravasation of fæces into the peritoneal cavity through an ulcer in the small intestine. One case of umbilical hernia in a female was operated on; recovery ensued. The sac was opened in every case. One patient with artificial anus was admitted in order that he might be fitted with an instrument.

A case is entered as constipation. The bowels had not been relieved for ten days, and vomiting had persisted for three days. When admitted there was great collapse and stercoraceous vomiting, the abdomen was tense, tympanitic and painful; pulse quick and weak, countenance sunken, but there was no hernia. After a purge and injection had been given, the bowels were freely relieved and the sickness stopped. In two days the patient was discharged at his own request.

For a case of cancer of the rectum colotomy was performed, but the patient rapidly sunk. It was the case of a woman, aged 38, who had suffered from difficulty in defæcation for seven years, and from the passage of blood and offensive matter. For eight months she had been almost unable to pass anything. On introducing the finger into the rectum, a hard ulcerated fungoid mass could be felt constricting the canal. The examination caused great pain. She was not much emaciated, and did not present the malignant cachexia. Amussat's operation was performed, but she gradually sank, and died in three days. There was no post-mortem examination.

(To be continued.)

Summary of Science.

(*Specially Edited and Compiled for the Medical Press and Circular.*)

By CHARLES R. C. TICHBORNE, F.C.S.L.,
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[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of statements made in any of the papers quoted in the compilation.]

MANUFACTURE OF GLASS VESSELS EMPLOYED IN CHEMICAL RESEARCH.

M. STAS says that ordinary glass vessels give up traces of the bases they contain to nitric and hydrochloric acid, even at ordinary temperatures. Hard Bohemian glass will resist this action, but is found very difficult to work, particularly in making flasks and such-like thin vessels, this difficulty being due to the great infusibility. He says that a glass having for bases potassium and calcium is easily worked, and is perfectly unacted upon by acids if it contains an excess of silica. Ordinary bottle-makers might take a useful hint from these remarks. No trace of arsenic (used by the makers in working this kind of glass) can be found in the vessels when made.

FLUORINE.

The *Chemical News* gives an abstract of M. Prat's paper upon this subject, which seems to have created some interest in the chemical world. M. Prat, besides other curious statements, says that he has succeeded in isolating the element fluorine, which, although often in the hands of the first experimenters, has so far baffled their attempts.

M. Prat regards the fluorides as in reality oxy-fluorides, and that the equivalent of fluorine is much higher than is usually supposed. He therefore considers that chemists have hitherto been mistaken as regards the composition of the fluorides and the theory of fluorine.

He says that the new equivalent of fluorine is 29·6. To obtain fluorine, according to M. Prat, fluoride of calcium (fluor spar) is heated with chlorate or perchlorate of potash. Oxygen is disengaged, and also a product which silver absorbs. The compound so found is floride of silver, insoluble in water, soluble in ammonia, and more rapidly altered in the light than chloride of silver.

According to M. Prat, this fluoride differs essentially from the soluble fluoride of silver of chemists, which is a compound of Ag. Fl., Ag. O.—not Ag. Fl.

Fluorine may be isolated, according to the author, by heating fluoride of lead either with nitre or with bromide of manganese. Oxygen and fluorine are evolved. A platinum alembic must be used, and the oxygen is removed from the mixture by passing over fragments of heated baryta. Fluorine is gaseous, almost colourless, of a chlorous odour, visibly fuming in the air. It blenches indigo and litmus, and immediately decomposes water at the ordinary temperature.

ARTIFICIAL FORMATION OF ONE OF THE BRAIN PRODUCTS.

M. Liebrich, in 1865, obtained from the brain a definite product, crystallizable, and containing phosphorous and nitrogen. This substance, on being treated with baryta water, yields

phosphoglyceric acid and a powerful base which he named nervine.

M. Bayer has recently demonstrated that it is a hydrate of oxethyl-ammonium in which three atoms of hydrogen are replaced by three groups of methyl.

M. Wurtz has produced the chloride of the base nervine by acting upon monochlorhydride of glycol by ammonia. The gold salt prepared from the artificial product was compared with the compound procured from the brain-substance, and they were identical in physical as well as in chemical appearance.

TEST FOR ALKALIES AND ALKALINE EARTHS.

M. Bœttger recommends an alcoholic extract of *coleus verschaffelti*, used in our gardens as an ornamental plant. The fresh leaves are agitated with absolute alcohol, mixed with a few drops of sulphuric acid. They are then left to digest twenty-four hours. Paper soaked in this tincture becomes red. The reagent is not influenced by carbonic acid, so that the earthy carbonates contained in water may be detected. A strip of the test paper held in a jet of coal gas becomes green from the presence of ammonia.

ON THE ACTION OF PANCREAS.

The above is the heading given by Dr. Dobell to an account sent by him to the Royal Society of his investigations in this direction.

The pig was the animal selected for the experiments, as being nearest in the character of its functions to that of the human subject.

On March 22, forty pigs were killed, and the pancreas was examined in each case immediately after death. The first ten had been fed two hours before they were killed; the second ten, five hours, and the third ten, nine hours, and the fourth ten had not been fed for two days. The pancreas in each group presented the same character in size, colour, and reaction. Each pancreas was cut open so as to show the principal duct, but in no case was there any fluid in the duct. Litmus, on being pressed sufficiently against the tissues, was in each case reddened.

The acid reaction is not found in the fat or the muscles of the animal. The reaction of the pancreas is always acid when it reaches the laboratory; but Dr. Collins, of London, found it alkaline in one lot of pigs killed in Hertfordshire. To discover the influence of the pancreas upon fat, the fresh pancreas of the pig, freed from all adhering blood and other extraneous matters, was cut into small pieces and mixed with lard, and to this mixture water was added. In the bruised condition the pancreas had an acid reaction. By stirring this mixture the fatty character of the lard disappeared, a thick white creamy fluid being found, which, on standing, solidified into a firm pasty mass. This emulsion rapidly putrefies, but remains as a permanent emulsion until putrefaction sets in.

The influence (the author remarks) exerted by the pancreas upon fats, appears to operate by breaking up the aggregate of the crystals of the fat (margarine, &c.) and altering its hydration. It alters the molecular condition of the fat, mingling it with water in such a way, that even ether cannot separate the fat from the water. The pancreas does not decompose it into fatty acid and glycerine, as shown by the absence of glycerine in the watery stratum, and the presence of glycerine in the "pancreatized" fat of an ethereal stratum.

If the watery extract of the pancreas is evaporated, pure, or mixed with malt dust, it may be kept good in the dry state.

RECENT RESEARCHES UPON OZONE.

Dr. Thomas Andrews has been endeavouring to clear up the mystery that hangs over this substance, particularly as regards the question—Is the substance that colours iodide of potassium and starch papers, ozone? as nitric acid and chlorine would have a similar reaction with that reagent. One of the most striking properties of ozone is its power of oxidizing mercury. On passing a stream of atmospheric air, which gave the usual iodide of potassium reaction for some hours over the surface of mercury contained in a U-tube, the metal was distinctly oxidized at the end, at which the air first came into contact with it. This experiment was not, however, considered conclusive, as mercury will tarnish and lose its mobility under the influence of many bodies besides ozone.

Ozone is destroyed by oxide of manganese, the air on passing over oxide of manganese no longer gives the reaction with iodide of potassium.

However, the most unequivocal proof of the identity of the body in the atmosphere with ozone was the action of heat.

Ozone obtained by electrolysis is quickly destroyed at a temperature of 237·6. Air passed through a vessel raised to this heat, no longer gave the reaction, although ozone was contained in it originally. On the other hand, when small quantities of chlorine or nitric acid vapours, largely diluted with air, were drawn through, the test papers were equally affected, whether the glass globe was heated or not.

M. Schonbein is also still working with his favourite subject. He says that the simultaneous formation of ozone and antozone may be illustrated in the following manner:—

Into a flask of 500 c.c. capacity, and three or four centimetres in diameter across the neck, a little ether is poured, and a red hot spiral of platinum is inserted. The platinum glows until all the ether is consumed. The presence of ozone is easily demonstrated by means of iodide of potassium and starch paper. To show the presence of antozone the flask is rinsed with a small quantity of ether, which will then be sufficiently charged with peroxide of hydrogen to give clearly the perchromic acid reaction (a beautiful blue colour). Some solution of bichromate of potash is placed in a test-tube, and the ether is poured from the flask on to the surface of this test solution. Antozone in the presence of water becomes converted into peroxide of hydrogen.

M. R. C. Lippincott proposes to use silver leaf for the detection of ozone. He exposes silver leaf to the atmosphere, kept moist by causing distilled water to pass over it, the water being conducted from an adjacent vessel by two or three threads of darning cotton. Whenever the ordinary test (potassie, iodide, and starch) indicated that ozone was present, some part of the silver leaf was oxidized.

STARCH OF MOLLUSKS.

M. Bizio says that the amyloidœ matter formed in mollusks is glycogen.

In contact with white of egg or casein lactic acid fermentation slowly sets in.

POISONOUS COMPOSITION OF "THE MOTHER OF PEARL ADDRESS CARDS."

M. A. Ebert, in a letter dated from Germany, draws the attention of the editor of the *American Journal of Pharmacy* to the poisonous nature of the pretty mother of pearl cards, which are so fashionable just at present. The crystalline effect is produced by a coating of acetate of lead (sugar of lead). The public should therefore be upon their guard, that they do not get into the hands of young children, who will almost certainly be induced to suck or chew them, from their sweet taste.

THE REFINING OF CRUDE CAMPHOR.

Crude camphor comes from China and Japan, the latter being much whiter and purer than that from China.

The impurities are chloride of sodium, sulphur, the remains of leaves and laurel-wood, a small quantity of tarry matter, and a quantity of water, which varies from two to ten per cent. The camphor is refined in mattresses, which are placed upon a properly-constructed brick furnace, carrying hearths supplied with sand-baths. Each furnace is provided with a movable grate, by which the operations can be controlled.

The crude camphor broken small is mixed with three to five per cent. of quick-lime recently slacked, when it contains sulphur, one or two per cent. of iron filings are added. These produce a whiter and firmer product.

It is then sublimed in the mattresses, but requires great care in regulating the heat.

Japan camphor loses in refining one to four per cent., and China five to six per cent.—*Bulletin de la Societié Chimique Paris.*

FERRATE OF POTASH.

M. Merz prepares this salt by passing chlorine rapidly through a solution of five parts of potash in eight parts water, and containing about one-fifth part of its volume of a solution of perchloride of iron. The temperature rises to about 50° C. The strongly-coloured liquor is then filtered. This solution will keep for some considerable time.

ON THE SOLUBILITY OF ÆTHER IN SYRUP AND THE FORMULÆ OF SYRUP OF ÆTHER.

MM. J. Regnauld and Adrian (*Journal de Pharmacie*) have been trying some experiments upon the solubility of æther in syrup, and recommend from their experiments the following formula for this preparation. We may mention that this syrup of æther enjoys some repute in the practice of French phar-

macy—it has been introduced into the French Codex. The authors state that the formula of the latter work is not constructed upon a knowledge of the solubility of æther. They propose the following proportions :—

Sugar . . .	440
Water . . .	490
Alcohol . . .	50
Æther . . .	20

The whole is introduced into a flask and shaken until the sugar is dissolved.

ON THE ACTION OF LEAD UPON DISTILLED WATER.

The question has been re-examined by M. Bœttinger. Metallic lead is, as we know, attached and dissolved by distilled water. The author attributes this action to the presence of ammonia, which exists in the ordinary distilled water. Lead filings were rapidly dissolved by ordinary distilled water, but if this water was kept at a boiling temperature for an hour, or if it was redistilled from a few drops of sulphuric acid, it no longer acted upon the lead. It is necessary to employ pure lead, as a small quantity of tin prevents this action by virtue of its electro-positive nature in regard to lead.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MARCH 25, 1868.

MR. ORTON'S REPORT ON CHOLERA AND THE WATER SUPPLY.

THE advocates of the hypothesis that last year's cholera "explosion" was due to the Old Ford water have had a long innings ; they have ridden their hobby-horse as far as they possibly could, and now that the jaded beast is utterly exhausted, it is but fair that those who have all along looked doubtfully on their proceedings should be quietly heard. We have already given, at considerable length, the conclusions arrived at by the Officer of Health for the City of London, and pointed out that they are diametrically opposed to the so-called "water-theory." That able and learned officer—by far the first chemical and physiological authority of the Health Officers—is fully competent to maintain, unaided, his opinions against the plausible arguments of his opponents. But it is clear that he does not stand alone, and that other gentlemen with opportunities of studying the outbreak find the hypothesis in question as unsatisfactory as he does. We have before us the report of the Medical Officer for the Limehouse District (Mr. Thomas Orton), and we notice that he, too, unequivocally rejects the assumption that the water was the main cause of the "explosion." Not only so, but he does not hesitate to push home the arguments that occur to him, and to point his remarks with personal observations that make them unusually piquant. We think he is quite justified in adopting this style, since the water theorists have forced their doctrines on public attention with a pertinacity that leaves no chance of being heard to any who do not follow in their wake, or depart widely from the stereotyped dulness of official records. In a word, they have been lead away by a taste for the sensational, and cannot fairly complain of those who clothe replies in an equally popular garb.

From the first it has been well-known that many of the London Medical Officers of Health were not prepared to subscribe to the doctrine so persistently urged upon public attention, although they were content to wait before giving expression to any positive conclusions until they should have had time to investigate the facts. It must further be confessed that the *facts* some of these gentlemen have recorded have not yet received the attention they deserve at the hands of those whose hypothesis they appear to invalidate. Thus it was long ago stated by Dr. LETHEBY that the Old Ford water contained "one-third less of organic matter in June, when cholera broke out, than in the following December, when it ceased." Again, it was stated, on the same authority, that not a single case occurred amongst the fifty residents of the London Hospital, nor amongst the 400 ordinary patients of that institution, though all the water they drank came from Old Ford. Then we have heard that at the East London Workhouse, with 300 inmates, there was only one case of cholera, and that one imported from a distance. Further, in the Eastern Division of the City of London, in 161 houses with 1732 inhabitants, supplied by the Old Ford water, there was but one death; the remaining 4495 houses, with 40,673 inhabitants, supplied by the New River Company, had sixty-two deaths. At Stamford-hill and Clapton, exclusively supplied from Old Ford, there was little or no cholera. These and other facts mentioned by Dr. LETHEBY, Dr. CORNER, Mr. ORTON, and others, certainly require explanation, and we regret that the advocates of the water theory have hitherto made no effort to grapple with them.

The facts themselves are most striking; they have been mentioned again and again by those under whose observation they came; they have never been questioned; yet those whose theories seem inconsistent with them make no sign. It is time they abandoned their speculations, or attempted to reconcile them with the facts of the case.

Mr. ORTON'S report affords them the opportunity, for it reiterates these statements, and adds to them others equally significant. We trust, therefore, it will receive the consideration that the importance of the subject demands. By way of showing the nature of the further evidence against the water hypothesis accumulated by Mr. ORTON, we add some of his statements, taken at random from the pages of his report. He tells us that in one family three moderate beer-drinkers died, while five children who, in the mother's words, were "*doing nothing but drinking water all day*," escaped from even diarrhœa. Again, he says, that of 600 inmates of the Stepney Union, only six died. Of 400 children in the Limehouse establishment, there was not a case of even diarrhœa. Of many other establishments similar results are recorded and commented upon with considerable skill. In this way Mr. ORTON brings together the drinking habits of 1800 persons—some of them infants at the breast—and draws from his laborious researches the following conclusions: 1. That the ordinary drinkers of Old Ford water were not affected by it differently than in former years. 2. That the drinkers of the alleged foul water were singularly exempt from the epidemic of 1866. 3. That the drinkers of fermented liquors

were the principal victims; and 4. That as numbers who perished drank neither stimulants nor the suspected water (infants), the cause of the explosion remains to be explored.

The report of Mr. ORTON, which extends to fifty-seven pages, contains much other matter in relation to this and other theories that have been propounded. We confine our observations at present to these few prominent facts, and the conclusions he draws from them, in order to place before our readers, as briefly as possible, the objections to a theory which has excited much alarm, and which certainly demands further consideration before it can be definitively accepted as sufficient.

Those interested in the subject will not fail to turn back to our epitome of Dr. LETHEBY'S report (MEDICAL PRESS AND CIRCULAR, January 15, 1868, p. 55), and carefully weigh the evidence there given, and so powerfully corroborated by Mr. ORTON.

It is to be regretted that so little consideration was given to these facts before the sensation paragraphs of last year were disseminated through the country, and that at present so many journalists should have committed themselves so thoroughly to the water theory that the other side has little chance of being heard. With the impartiality with which we endeavour to treat all such discussions, our columns will be open to communications, and we shall be glad to further comment upon them as occasion may require.

DR. JOSEPH ROGERS.

THIS name is familiar as a "household word" to every Poor-law Medical Officer in the Kingdom. No one has been more earnest in promoting Poor-law Reform. No one could more worthily have supported the dignity of the profession in the constant war that has been waged by the Strand Guardians of the Poor. Yet, Dr. ROGERS at length retires from his arduous duties under circumstances likely to kindle indignation in the breast of every Englishman who hears the tale. A majority of the Board of Guardians suspended him, and asked for his compulsory resignation on the ground of incompatibility, &c. A respectable minority memorialised the Poor-law Board in his favour. He demanded a public inquiry, and was supported in that demand by the unanimous vote of the vestry, where he has laboured for nearly a quarter of a century.

"Of course his demand was agreed to," is the natural exclamation of those who know nothing of the sublime indifference of the Central Board to the laws of justice or the wrongs of Medical Officers. It must be told—this tale of shame. The magistrates of Gwyder House held a *secret* inquiry into the statements of the Strand Guardians, and agreed that Dr. ROGERS should be asked to resign; since, although there was no charge against him as to his professional duty, his removal might contribute to the harmony of the Union.

It must be added that this precious Board of Guardians is about to be broken up and re-constituted.

The matter cannot rest here. The Metropolitan Poor-law Medical Officers' Association has passed a resolution of confidence in Dr. ROGERS, and pressed him to continue to act as their President. The Workhouse Association, at a meeting on Friday week, expressed condemnation of the authorities, and recommended that the question should be brought forward in Parliament.

Dr. ROGERS will have the sympathy and support of the whole profession, and of almost the whole press of Great Britain.

We say almost, because, to the great surprise of many, the *Journal of the British Medical Association*, which has lately affected so much interest in the Poor-law service, has at present refrained from any protest against the injustice that has been perpetrated.

Notes on Current Topics.

Inspiration.

THE second Pentecost which has fallen upon two of our Medical contemporaries, *soi disant* "the leading journals," has lately taken the form of an inspiration more suitable to the "Jeames" of the *Morning Post* than to the solemnity of Medical law-givers. The competition for a quotation in the daily journals with all the halo (and all the advertising connection) which that distinction imparts to the journalistic source, has given birth to a series of pseudo-medical chronicles of the pains and aches of crowned heads and Royal off-shoots, which will be read in future years with wonder as to what their oracular phrases may mean. With incredible *acumen* our contemporaries have calculated the public pulse, and supplied the desired medical stimulus in the most judicious doses, and we can no longer afford to neglect the department of Medical Flunkeyism which is so active in the columns of our contemporaries. As there is no European King or Prince sick enough to merit a paragraph (except the Pope, and he has been "done" this week already), we have been favoured with the following important and exclusive despatch as to the health of the Emperor of Borrioboolagha, which, it is to be hoped, may in some measure relieve the prevailing anxiety in European diplomatic circles :—

HEALTH OF THE EMPEROR OF BORRIOBOOLAGHA.

The poignant sorrow with which the subjects of his most supreme Majesty have learned of the appearance of certain obscure symptoms of dacryo-cysto-seringo-kata-kleisis may receive some alleviation from the statement that the symptomatology of that affection has not been developed to the full extent. We believe we will be found to be accurate in the announcement that his most supreme Majesty has experienced an amelioration of the symptoms which were formerly more urgent than they are at present, and that *if* the series of manifestations which have given universal concern to the medical attendants of his supreme Majesty should cease to be observed a cessation in these symptoms may be anticipated.

"A Victim to his Candour."

A QUACK named Campbell, described in his own hand-bills as a Member of the Royal College of Physicians, and a Licentiate of the Apothecaries' Company, has been figuring as a receiver of stolen goods in the London police courts. He had, it appeared, having extracted from an artizan who stood beside him in the dock all his available money, received in payment for medical services a quantity of stolen paper, and having been sent to jail for a week he protested against such an injustice to him, describing himself as "a victim to his candour." It is greatly to be regretted that the same desirable result cannot be arrived at in respect of some of "the victim's" coadjutors without the intervention of an unfortunate artizan.

St. Thomas's Hospital.

THE hope conveyed to her Majesty the Queen by the Governors of St. Thomas's Hospital, that her Majesty would be pleased to lay the foundation-stone of the new hospital, has been graciously responded to, and a day will be fixed for the ceremonial after the 12th of May.

The Farnham Workhouse.

THE details of maladministration, neglect, and inhumanity which raised such a ferment in the public mind a few months ago, turn out, on the investigations of Mr. Lambert and Dr. Edward Smith, whose report has just been issued, to have been altogether unreliable. The workhouse has been found to be, perhaps, just as dirty, ill-ventilated, and badly cared as many other similar institutions probably are, but not more so, and the inspectors report "that most of the serious charges have been disproved, while others have been shown to be exaggerated." To those who can regard such statements without bias and in calm consideration, it will not be wonderful that the heated statements and opinions of the press should appear to require modification. At the same time that the papers have done good service in calling attention to abuses which might have gone on for any period unchecked, still it is very well that on the verdict of men of such character as Mr. Lambert and Dr. Smith, it should be understood that workhouses are not such pandemonia as they have been represented.

Liability of Medical Men to Conspiracy.

THE liability of medical men to accusations involving a breach of their professional confidence, has been most painfully illustrated in a case tried in the Crown Court at Antrim last week, in which a Mr. William Crossden sued Dr. Hume, of Crumlin, for a criminal assault on his wife in the discharge of his medical duties. The issue was sustained by very explicit evidence on the part of the plaintiff and his wife, and defended by the most vehement and positive sworn denial of the defendant.

As the learned judge remarked—"If the plaintiffs' story be true, he had sustained a gross injury; if the defendant's story be true, the plaintiffs were conspirators of the basest kind." In view of such uncorroborated evidence the jury disagreed.

We cannot pretend that the commission of the offence charged would be incredible because the accused happens to be a medical man, although we can take credit for the marked infrequency of such charges against our profession in the face of personal temptation such as no other persons are ever subjected to. It is not, however, an extraordinary principle which we enunciate when we say that a greater weight of evidence should be demanded by juries against medical men than against other persons. By the very nature of their avocations, medical men are exposed to the plots of conspirators in this line, and are necessarily not in the position to produce exculpatory evidence, and we think that any less proof than the credible evidence of a third, and disinterested witness, ought not to be held sufficient to attach to a medical man the guilt of the greatest crime which, morally or professionally, he could commit.

Collegiate Economy.

THE financial purgation to which, as we announced some weeks since, the Royal College of Surgeons of England is to be subjected, has had its first effect in an unexpected direction. The Council of the College have determined on the motion, we believe, of Mr. Partridge, that the College funds shall be no longer expended on Council dinners. The merit of such self-denial is unfortunately rather marred by the consideration, that under the auspices of the Council such an extraordinary allocation of collegiate funds could have ever occurred. That it did occur, and that to the extent of about £400 a-year, is the strongest argument in favour of monetary reform, which ought to have an ample field where such an expenditure was permitted.

Formation of an Army Medico-Chirurgical Society.

THE military members of the profession at Portsmouth and its neighbourhood initated last week an effort to establish amongst the members of their branch of the profession an interchange of opinion and experience, such as our numerous medical societies accord to their civil brethren. The isolation of small numbers of army medical officers, essential to their duty, must always restrict the professional intercourse of the many to a few special localities. Portsmouth, with its extensive depôts and numerous administrative departments, and its vicinity to Southampton and Netley, is specially suited to such an effort, and we hope yet to record a success which will encourage similar organisations in Chatham and elsewhere.

On Wednesday afternoon, a number of gentlemen met in one of the wards of the Garrison Hospital, used for the performance of church services, to hear the opening address delivered by Deputy Inspector-General, Dr. Gordon. In the course of his observations, of which we have an abstract in type, but are compelled to postpone its publication till next week, Dr. Gordon reviewed the progress of military medicine and surgery, and the contributions of celebrated army medical officers to its literature. The address was well received, and the inaugural meeting separated with an *eclat* which promises well for the future of the society.

The Physics of the Nervous System.

RESEARCH into this interesting subject is about to receive an important extension at the hands of Dr. Richardson, of London. As President of the Medical Society, that gentleman has announced his intention of contributing in the early part of each sitting a series of experimental illustrations in this direction, for the completeness and value of which Dr. Richardson's name is a guarantee to the profession.

The Medical Supervision of the Mountjoy Convict Prison.

THE result of the discussion in the House of Commons, which we reported in full a couple of weeks since, in which it was roundly charged that the Irish Government had got rid of Dr. McDonnell because he remonstrated against the inhuman treatment of Fenian prisoners, was the immediate appointment of a commission to investigate the case of the prisoner who died lately under suspicion of neglect on the part of the medical officer appointed in Dr McDonnell's place. We understand that the commissioners—Mr. Lentaigne, Mr. Tufnell, and Mr. Robinson, have reported that there was no neglect in the case, and that accusation is thus set at rest. The facts, however, to our mind, reflect little credit on the Irish Government, and the decision of the commissioners cannot mitigate in the least degree the character of the entire affair.

In August last, the occasion of Dr. Banon's death was taken to get rid of the remaining visiting physician—and why? Because, according to Lord Mayo's statement, the change was advised by Mr. Murray, the director. Thus the Chief Secretary admits to have acted solely at the suggestion of an official who was himself the person principally inculpated in Dr. McDonnell's humane protest, without inquiry as to the merits of the question at all, and to have, at the bidding of the person for whose supervision the office of visiting physician existed, turned out the medical officer in the exercise of that supervision, and substituted an official who, from his position, could exercise no check at all, and whose qualification was that he is the son of the Chief Secretary's agent.

The Contagious Diseases' Act.

THE extension of the legislative provisions respecting the propagation of contagious diseases was the subject of a discussion in Parliament last week. On an inquiry from Major Dickson, Sir John Pakington observed, that it was expected that efficient hospital accommodation would be ready in Dover in next May, and that then the Act would probably be extended to that town. Viscount Lifford has given notice of his intention to inquire whether it would be extended to London.

Guinea-Worm.

EVER since the Abyssinian expedition was decided on, we have heard, from time to time, more or less veracious accounts of the dreaded Dracunculus. Some of the descriptions circulated have partaken altogether of a sensational character, and if half they portrayed were trustworthy, we have, indeed, reason to rejoice that our troops have escaped the tortures some lugubrious prophets declared were in store for them. Not very much is really known of the subject in this country. Travellers, however, have described the parasite and the symptoms it gives rise to, as well as some methods of extracting it.

Staff-Assistant Surgeon Africanus Horton, who has served several years with Her Majesty's forces on the Gold Coast, where the Guinea-worm is common, has just published his observations on the subject in the form of a pamphlet, in which he not only describes the progress of the disease caused by the worm, but announces a radical cure! And this cure is no difficult or painful operation, no violent or dangerous poison. An old-fashioned household drug, the only drawback of which is a disagreeable taste, has only to be swallowed and the worm will be destroyed, the excruciating agony it has caused subside, and the patient probably remain unmolested by such enemies for years! Dr. Horton says "there are two main results obtained by the use of his remedy. These are *rapidity of cure* and *total annihilation of the worm*," and they are obtained in all three stages of the disease. He writes—"I have seen cases where patients were suffering from the most excruciating pains, which entirely prevented them from moving about, being for the time perfectly crippled, who took the remedy; and no sooner was the physiological effect manifest than the pains were dispelled, and the individual was enabled to walk about with ease and freedom."

Who after this would hesitate to swallow a drug because it was nauseous? Dr. Horton makes no secret of his remedy. It is merely assafœtida, and if this drug really possess such marvellous powers the sooner the Government send a quantity to the Gold Coast the better. By all means let us supply our troops there with a remedy equal to the "total annihilation" of the Guinea-worm.

Dr. Horton relates six cases treated by him while stationed on the West Coast of Africa.

The Public Health.

THE mortality returns are still unusually favourable, the deaths continuing to be under the average in almost all localities. The annual rate of mortality for the whole kingdom last week was 24 per 1000. It was 22 per 1000 in London, 29 in Edinburgh, and 24 in Dublin; 27 in Bristol, 23 in Birmingham, 30 in Liverpool, 28 in Manchester, 22 in Salford, 23 in Sheffield, 27 in Leeds, 25 in Hull, 24 in Newcastle-upon-Tyne, and 31 in Glasgow.

Manchester exhibits a remarkable decline of mortality, especially in the number of deaths referred to zymotic diseases. Measles, however, prevails in one of the workhouses just outside the municipal boundaries.

Sheffield and Hull have an epidemic of small-pox. In London the total number of deaths registered during the week was 1309, being less by 312 than the estimated average for the eleventh week of the year. The deaths from zymotic diseases were 228, the average number being 325. There were 11 deaths from small-pox, 36 from measles, 12 from scarlatina, 8 from diphtheria, 54 from whooping-cough, 36 from fever, and 14 from diarrhœa. Of diseases of the chest, we note 191 deaths from phthisis, 140 from bronchitis, 73 from pneumonia, and 73 from diseases of the heart.

As we had not space in our last impression to summarise the prior week's returns we may hear state that in the metropolis the deaths registered during the week before last numbered 1610. This is 279 less than the average number for that week, corrected for increase of population.

The annual rate of mortality was 24 per 1000 in West London, 22 in North London, 22 in Central London, 22 in East London, and 22 in South London.

The deaths from zymotic diseases were 259, the corrected average number being 331. Twenty-four deaths from small-pox, 39 from measles, 16 from scarlatina, 7 from diphtheria, 61 from whooping-cough, 48 from fever, and 12 from diarrhœa were registered.

"Three deaths from small-pox were recorded in the west, 8 in the north (where the Small-pox Hospital is situated), 5 in the east, and 7 in the south districts. One fatal case was registered in the Holborn district. Four deaths from small-pox occurred in the sub-district of Woolwich Arsenal. Eleven deaths from measles were recorded in the west, 8 in the north, 3 in the central, 7 in the east, and 10 in the south districts. Fifteen deaths from whooping-cough were registered in the west, 7 in the north, 8 in the central, 9 in the east, and 22 in the south districts. Four children died from whooping-cough in the workhouse at Greenwich.

The deaths from fever were at the annual rate on 10,000 living of 6 in West London, 6 in North London, 10 in Central London, 9 in East London, and 9 in South London. In calculating these results, the deaths in the London Fever Hospital were referred to the districts from which the patients were brought.

"Last week 6 deaths from fever were registered in the central districts; of these one death occurred in the district of Clerkenwell, 3 deaths were in the district of St. Luke, and 2 in the district of East London (St. Botolph and Cripplegate).

"One hundred and fifty-four deaths occurred from phthisis, 138 from bronchitis, 76 from pneumonia, and 62 from disease of the heart."

SCOTLAND.

The returns of the northern kingdom for the month of February have been issued. During that month 2170 deaths were registered in the eight principal towns of Scotland—Glasgow, Edinburgh, Leith, Greenock, Dundee, Aberdeen, Paisley, and Perth. "Allowing for increase of population, this number was 265 under the average mortality of the month during the last 10 years. The epidemic and contagious class of diseases proved fatal to 469 persons, constituting 21·6 per cent. of the total mortality. This rate was exceeded in Dundee and Leith, from the fatal prevalence of measles in the former, and scarlatina in the latter town. Of 113 deaths by fevers, 54 were from typhus and 50 from enteric. Scarlatina and whooping-cough caused each 87 deaths, measles 69, croup 30, apoplexy 42, paralysis 37, diseases from inflammatory affections of the respiratory organs 381, besides 268 from consumption. Seventy-one deaths were registered from violent causes, two from *delirium tremens*, and five from intemperance. Of the 2170 deaths, 943, or 43 per cent., were those of children under five years of age; in the smallest of the eight towns—Perth—the proportion of these early deaths was only 28 per cent. of the whole mortality, but in the largest—Glasgow—it was 50 per cent. In Leith it was 48 per cent., and in Dundee 44 per cent. Eleven of the persons who died during the month had passed their 90th year; the eldest was the widow of a millwright, aged 101 years. The births registered in February in the eight towns were 3003. Of these, 300 were illegitimate, being in the proportion of one illegitimate in every 10 births. The marriages for the month numbered 493, which was 20 below the average of the corresponding period of the last 10 years. The month was characterized, in a meteorological point of view, by a disturbed barometric pressure, unexampled high mean temperature, large amount of rain, great force of wind, and continued westerly, strictly W.S.W. direction beyond parallel. The highest mean temperature was recorded at Leith, 44 deg., and the lowest at Aberdeen, 41·6 deg. The large number of 26 rainy days out of the 29 occurred at Glasgow, at Paisley and at Greenock; the depth of rainfall at Greenock was 11·74in., or nearly twice that of Glasgow and Paisley. Edinburgh was at the head of the mean pressure of wind column, with 7·40lb. on the square foot; while Paisley was at the foot, with only 1·03lb. on the square foot—a curious fact, if true, seeing that the wind was blowing from Paisley to Edinburgh."

Dr. Cockle proposes to cure fatty tumours by injecting them from time to time with liquor potassæ, diluted with two-thirds of water. We understand that the suggestion has already been put in practice.

Dr. W. H. Day has just re-printed a paper on Gastrodynia. He would restrict this term as much as possible to pain of a neuralgic character.

Proceedings of Societies.

HARVEIAN SOCIETY OF LONDON.

Thursday, February 20, 1868.

Mr. William Adams read a paper entitled, "In what cases is Lateral Curvature of the Spine Curable? and what are the directly Curative Means."

He insisted that no confirmed or persistent curvature of the spine, however slight, can exist merely as a functional affection, but that in every instance a spinal curvature is necessarily associated with, and dependent upon, certain structural changes, proportionate to the degree of curvature and its duration. He drew a broad line of distinction between these cases and cases of *weak spine* with a disposition to curvature, which he described as a functional affection depending upon muscular debility.

He relies for diagnosis entirely upon the altered relations of the angles of the ribs in the dorsal region, and of the transverse processes in the lumbar region.

The author did not consider that the ligaments or muscles underwent any important changes in the early stage of the affection. He stated that the curable stage of lateral curvature was limited to the early period of the affection—probably one or two years—when the structural changes are slight and recent, and when we have youth and growth in our favour. If this opportunity of curing a spinal curvature be lost, it rapidly becomes incurable, and capable only of being arrested by mechanical support.

Dr. Dick observed that when the spine had a lateral curvature, the bodies of the vertebræ were compelled to rotate with every movement backwards or forwards of the spine; in fact, he had proved this to be a law of any elastic rod. Any pressure applied to the sides of the spine only increase the rotation; consequently, in order to be of any use, pressure must always be applied to the back.

Mr. Steevens did not believe that rotation of the vertebræ was an essential element in curvature of the spine, but that this was generally dependent on some condition of the muscles.

Mr. De Meric thought the division into functional and structural curvatures a very good one; the former class was very easily cured, and it was from these cases that so much credit was often derived.

Dr. Cleveland suggested the probability of structural changes in the spine beginning at a very early period, from the faulty positions in which children were carried by nurses.

Mr. Adams, in reply, said he thought that the benefit supposed to be derived from division of muscles was really due to the long continued confinement afterwards necessary; he did believe the muscles either caused or kept up curvature; but in other cases of deformity, where the muscles were really in fault, as in wry-neck, great advantage was to be gained from subcutaneous division of the tendon of the offending muscle. He considered mechanical pressure as a directly curative agent, but it must be kept up for years, and must be applied either posteriorly or diagonally; he agreed with Dr. Dick that lateral pressure was productive of mischief, increasing the rotation of the spine, which was invariably present. Lateral curvature was not uncommon at 3, 4, and 5 years of age, and at these ages it rapidly became incurable, and there was no hope from treatment unless continued up to 20 years of age. A good plan with children was to tie them to a sort of cradle, such as he had seen commonly used by the peasantry in the South of France.

MEDICAL SOCIETY OF LONDON.

Monday, March 2, 1868.

Mr. Henry Smith, President.

Mr. Francis Mason showed a calculus surrounding a piece of bougie which his colleague, Mr. Barnard Holt, had removed from a man at the Westminster Hospital. The patient was 41 years old, and had had stricture of the urethra for 25 years. Fourteen years ago a bougie was passed, a part of which remained in the bladder, this was extracted through the perineum, but the stricture continued as bad as ever, an abscess formed about a month ago which burst in his perineum. Through the sinus urine had constantly dribbled. Mr. Holt introduced a probe into this sinus, and at length came upon the calculus, which was of the lithic acid variety, and which surrounded a piece of bougie about an inch long. Mr. Holt thought the stone was situated in a false passage by the side of the urethra. Mr. Mason also showed a piece of bougie removed from the bladder of a patient with the ordinary lithotrite.

Mr. William Adams then read a paper "on the treatment of wounds on the antiseptic and subcutaneous principles." The object of the author was to show how far the antiseptic and subcutaneous principle may be relied on separately in the treatment of different classes of wounds, and to what extent they should be combined. The author then proceeded to describe the various methods which have been devised for dressing open wounds, including incised and lacerated wounds, compound fractures, &c., pointing out how far each one depended upon the subcutaneous principle. He then spoke of the treatment of dressing wounds with lint dipped in the patient's blood, and with lint soaked in compound tincture of benzoin, also with collodion, and with the more recent preparation introduced by Dr. Richardson, called "the styptic colloid." Mr Adams spoke of a case of amputation of the foot in which he

had used this styptic, and that union by the first intention had taken place through nearly the whole of the wound. In many cases that had been treated at the Great Northern Hospital the wounds had been washed with ether without using water, and with the very best results. The author then referred to cases in which suppuration had been established. He dwelt upon the advantages of lime water applied to suppurating wounds, and believed the chief virtue of the so-called canon oil in cases of burns were due to this ingredient. He concluded by arranging the various kinds of wounds into six classes, and gave a general summary of the treatment in each class as based on the antiseptic and subcutaneous principles.

In the discussion that followed, Dr. RICHARDSON made some most interesting observations. He first spoke of the germ theory of M. Pasteur. He believed that water was a bad application to wounds. The great desideratum was to prevent oxidation. Wounds presented a different appearance at different times. This, he thought, was due to the variable moisture in the atmosphere, or to barometrical pressure. Surgeons, he said, would, fifty years hence, select their days for their operations on that account.

Mr. Hunt, Dr. Sansom, the President, and others, took part in the discussion, and the author having replied, the meeting adjourned.

CONVERSAZIONE AT THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

ON the 12th inst., the President and Fellows of this Corporation gave a conversazione, in the Faculty Hall, where some 250 visitors were entertained. There was a great display of professional, scientific, and artistic objects, and several hours were spent in their examination, and in social intercourse. Refreshments were provided in the library of the hall. Prior to the adjournment thither the company assembled in the large Hall and were addressed to the following purport by the President, Dr. Fleming:—

On the part of the fellows of Faculty, I beg to assure you that it gives us great pleasure to find that the invitations issued for this conversazione have been so generally accepted. This numerous meeting of our professional friends, from all parts of Scotland, is ample proof that these reunions are appreciated, and are fulfilling the ends the Faculty had in view in instituting them. The duties of a public body like this are various and important. There can be no doubt that the object of our forefathers in instituting the medical corporations of Scotland, was entirely the protection and welfare of the community. The phraseology of the charters shows that any benefit to our profession entered little, if at all, into the consideration of the subject. The protection of the public from illiterate and empirical practitioners, who seem to have abounded in the days of our foundation quite as much as they do now, necessitated the calling in of the aid of the scientific part of the profession, and of conferring on them certain corporate duties. It has been the fashion of late years to call these duties rights and privileges. I confess I cannot see on what principle or just adaptation of language they have so been designated. Those public duties could only be performed through the agency of corporate bodies; and the question at once arises—how have these corporations performed the trust confided to them? I have only to look around on this numerous, intelligent, and educated assemblage of physicians and surgeons for an answer to the question. A large proportion of your number are alumni of the Glasgow School of Medicine and Licentiates of this Faculty; and, while we have good reason to be proud of you, I trust you have no cause to be ashamed of us. Of late years, I am glad to say, a great and very favourable change has taken place in the condition of our profession. The thirty years' conflict is now matter of history, and a new and brighter era dates from the Medical Act of 1858. Some sanguine spirits have been disappointed at the results which have followed the labours of the Medical Council brought into existence by that Act, and cynics have sneered at its pretensions and importance; but considering the chaos in which it found the government of our profession, the very imperfect Act of Parliament it had to administer, the conflicting difficulties with which it was surrounded, I affirm, without fear of contradiction, that it has done wonders; and I appeal to every man of twenty years' standing in the profession for confirmation of this assertion. While, then, gentlemen, we have reason to be satisfied with our professional and social advancement of recent years, such progress ought only to stimulate us to increased exertions for the future. Where is the great body of the profession to look for the initiative in such exertions? Certainly to the medical corporations. The wisdom and foresight of our forefathers founded, in 1599, one of these institutions—viz., this Faculty—in this city; and wonderful as has been the progress and prosperity of this district, I am proud to think that medical progress has not lagged behind, and that we have now one of the largest and most distinguished medical schools of the United Kingdom. With all deference to our friends of the University, I must be permitted to say, that for the origin and first progress of this school we are mainly indebted to the prescience and fostering care of this Faculty. I can assure you that we were never more desirous than now to devote our means and our influence to the encouragement of medical education and medical science, the only true foundations on which our prosperity, whether as individuals or as a united profession, can rest. I trust, therefore, our brethren will continue to rally around us, the natural centre of professional convergence in the West of Scotland.

The PRESIDENT then introduced to his audience Dr. Weir, who four years ago, on a similar occasion, read a paper on the history of the Faculty, and who was about to supplement it with a further communication on the same subject. The President felt that the subject was far from exhausted, and looked forward with pleasure to future papers by the same author.

Dr. WEIR then read his paper, which he called a "Second Chapter of the History of the Faculty," in continuation of the paper read in 1864. After alluding to the founders of the Corporation, Dr. Weir said that his remarks this evening would have reference chiefly to the life and professional labours of some of the members of the faculty in the eighteenth century, who had attained some rank and celebrity in the profession as physicians and surgeons, and who were worthy by their discoveries or improvements in medicine to be remembered by their successors as shedding some degree of lustre and honour on the Corporation. Unfortunately, the minute books of the Faculty from 1682 to 1733 were destroyed in the latter year by an accidental fire, and for a period of fifty years the records were awanting. From the minute of the first meeting held after the fire, it appeared that at that time there were eighteen resident members, besides a large number of licentiates, practising in all the towns throughout the four counties over which the Faculty at that time had jurisdiction. From that year to the end of the century 134 members entered the Faculty, making, with 18 above mentioned, 152 in all. Of these he might mention Dr. Johnston, Professor of Medicine in the University about the year 1745, whose name appeared as president from 1737 to 1739, and who was an active member for several years; and Dr. Hamilton, Professor of Anatomy and Botany in the University, and whose father and grandfather had both occupied the same chair, and who were descended from the family of Hamilton of Preston, an ancient branch of the ducal house of Hamilton. Dr. Hamilton was president from 1734 to 1737, and was the granduncle of the late Sir William Hamilton, the distinguished metaphysician. Of Dr. Cullen it was scarcely necessary to say anything to the present audience, except in regard to his connection with the Faculty. At an early period of his life he was apprenticed to Mr. John Paisley, a surgeon of extensive practice in Glasgow, and thus acquired the rudiments of his profession in this city. After leaving Glasgow he was appointed surgeon to a merchant ship sailing to the West Indies. On his return he studied with great ardour in London and Edinburgh. He then practised two years in the parish of Shotts, afterwards in Hamilton, and ultimately in Glasgow. While in Hamilton, the afterwards celebrated William Hunter was his pupil, and latterly partner, and to the end of his life esteemed his old master and friend very highly. It appeared from the Faculty minutes, that though Cullen applied in 1736 to be admitted a "freeman" of the body, and a thesis was appointed for him to write upon, from some unexplained cause he did not appear for examination. He graduated at Glasgow University in 1740, and settled in Glasgow in 1744, in which year he was admitted a member of the Faculty. He immediately began to lecture on the practice of medicine, materia medica, botany, and chemistry, the celebrated Dr. Black being his pupil and assistant in his chemical prelections. On the resignation of Dr. Johnston, in 1751, Cullen succeeded him in the Chair of Practice of Physic, having, however, been elected President of Faculty some years previous to this. In 1756 he was appointed to be Professor of Chemistry in the University of Edinburgh, and filled successively the Chairs of Institutes of Medicine and Practice of Medicine in that University. Cullen was the first, or among the first, to deliver lectures in English, Latin having

previously been the language used for that purpose. He was unquestionably a man of talent and great industry—a deep-thinker, accurate observer, and accomplished physician. His teaching and doctrines, particularly his great doctrine of excitement and collapse, had for a long time a most extensive influence on the practice of medicine, and his system of nosology has been a text-book of the medical schools almost down to our own day. His "First Lines of the Practice of Physic" was sufficient to place him in the highest rank in the profession, and to give him an imperishable name. Dr. Joseph Black, Professor of Chemistry, as has been already mentioned, was a pupil of Dr. Cullen, took his degree in 1754, and was elected President in 1759; and again in 1765 he became Lecturer on Chemistry, after Cullen had gone to Edinburgh. After many experiments, he propounded the celebrated doctrine of latent heat, which is still identified with his name. He was appointed Professor of Chemistry in Edinburgh University in 1766, and died in 1799. Drs. Johnston, Hamilton, Cullen, and Black, if they did not actually found the School of Medicine in Glasgow, added very greatly to its reputation, and had the two last distinguished men remained in Glasgow instead of removing to Edinburgh, it is difficult to say what might have been the relative position of the two medical schools at the present day. Dr. Weir, after alluding to the career of Dr. John Gordon, another distinguished member and President of the Faculty, sketched the life of Dr. John Moore, the well-known author of "Zeleuco," and the father of Sir John Moore. Educated in Glasgow, he became a zealous member of the Faculty, and practised in Glasgow for twenty years. Prior to settling down in the city he had travelled through many parts of Europe in company with Douglas, the eighth Duke of Hamilton, and published an entertaining account of his travels. He is a voluminous writer, though he published only one professional work, entitled "Medical Sketches." He became "Visitor" of the Faculty in 1757, and died in 1802. He was admittedly a man of great literary attainments and high reputation. He had much correspondence with the poet Burns, who greatly admired his literary productions. Tobias Smollett, the celebrated historian and novelist, was an apprentice to the same surgeon, Dr. Gordon, to whom Dr. Moore had also been articled. He was never a licentiate of the Faculty, though his name is entered in the Faculty records as an apprentice. The celebrated Dr. William Hunter received his preliminary education in Glasgow University, and was for a short time a partner of Dr. Cullen, but soon removed to London, and there acquired the great name in the profession, of which you are all aware. He was never an ordinary member of the Faculty, but he was the second individual upon whom the honorary fellowship was conferred. This title was awarded to him in 1751, when he was at the height of his fame. He bequeathed his very large collection of anatomical and obstetrical preparations to the University of Glasgow, thus forming the Hunterian Museum. After referring to Dr. Peter Wright, Dr. Weir next alluded to Mr. Samuel Hunter, a licentiate of the Faculty, long editor and co-proprietor of the *Glasgow Herald* newspaper. He served in Ireland as surgeon to the North Lowland Fencibles, afterwards became a captain in the same regiment, major in the Glasgow Sharpshooters, and afterwards commandant of the 4th Regiment of Highland Local Militia; and in 1820 commanded the Corps of Gentlemen Sharpshooters raised at the time of the "Cotton Rebellion." He was a Magistrate of the city, well-known and respected by all classes, Tory, Whig, and Radical. He died in 1839. In concluding, Dr. Weir said that he might have dwelt a great deal longer on names which he had mentioned, had time and other conditions permitted. Some of the names he had mentioned, had shed a lustre on medicine and the collateral sciences, which still continued to shine; and he sincerely trusted that the younger members of the profession might be stimulated by the exertions of their predecessors to follow their example, to emulate their great achievements, and, by discoveries and improvements in the healing art, reap the grateful thanks of their contemporaries, and the esteem and gratitude of succeeding generations.

At the conclusion of this interesting paper, a vote of thanks having been moved by Professor ANDREW BUCHANAN, and seconded by Dr. CAMPBELL, of Largs, was carried unanimously.

Dr. GAIRDNER, Edinburgh, also briefly addressed the meeting. He considered nothing could be more interesting to the profession than the history of their predecessors in the walks of professional industry, and as a small contribution to their information on that point, proceeded to state a few facts in relation to the connection which so long existed between surgeons and barbers. This connection, according to the learned doctor, originated in the association of offices in monasteries, where, in consequence of the prevalent use of the razor, and the love of good cheer, shaving and phlebotomy were two operations greatly in vogue, and thus from convenience became to be discharged by the one operator. In Scotland this connection was done away with at a very early period, but in France it continued, at least in a modified form, down to the period of the great revolution. Concerning this connection the speaker went on to state that his late brother used to relate a curious anecdote, which he had heard when a young man from Chaussiere, the eminent French professor, who was in the habit of narrating how, after the outbreak of the revolution, he called in a carpenter to cut down a partition which existed in his class-room, and which separated the students of pure medicine and surgery from those who were merely there as barbers, exclaiming *Plus de distinction entre ceux qui rasent et ceux qui ne rasent pas*—down with all distinction between those who shave and those who don't. Chaussiere, however, used very candidly to add, if the distinction between the two was broken down the class went down also, the students of medicine not being sufficiently indoctrinated with the then prevalent theories about liberty, fraternity, and equality to take kindly to their brethren of the razor and lather-pot. Dr. Gairdner concluded by congratulating the Faculty on possessing such a historian as Dr. Weir, and also on having a history so worthy of being recorded.

The following evening the medical students of Glasgow were invited by the Faculty to a similar entertainment.

SURGICAL SOCIETY OF IRELAND.

FEBRUARY 28TH, 1868.

Mr. PORTER, Vice-President of the College, in the Chair.

PRESENT:—Drs. Benson and Richardson, Hon. Secs.; Fleming, Jameson, White, H. Kennedy, Eustace, Ferguson, R. H. Moore, C. Moore, Minchin, Morrogh, F. Kirkpatrick, Guinness, Jacob, Wilson, W. Stokes, Mapother, Wharton, Roe, H. G. Croly, W. D. Moore, McDowell, Willis, Barker, Tyrrell, O'Grady, Brady, Swan, Lalor, Cronyn, Telford, Usher, F. T. Porter, J. Benson, Torney, Hewitt, Barry, Walter Smith, Croly, Macnamara, Hargrave, Morgan, Tufnell, M'Grath, and Burne.

Mr. H. G. CROLY offered the following remarks on

FRACTURE OF THE PATELLA.

He said—At the last meeting of the Society, I read a paper on fracture of the patella, and I commenced by saying, that I did not consider it necessary to make any apology for bringing it under notice, when I found the following passage in an English work on Surgery: "The author believes from what he has seen that fractured patella is one of the opprobria of English surgery." I wont say how far I agree with that notion or not, but the words are not mine, and finding such a view taken by others, I thought I was justified in bringing under your notice a case which I had treated by a method not generally practised in this country. With regard to the union of the fragments in that case, there was a misapprehension on the part of some of the members. It was believed I said that there was bony union in the case. I said nothing of the kind. I said if I had an opportunity, which I did not wish to have, of macerating the man's patella, I would be able to prove whether bony union had taken place; but I confined myself to stating that there was firm union of the parts. What I said about the closeness of the union was also misunderstood, and accordingly I addressed a letter to the surgeons of the "Royal George," who were called on by the Admiralty to examine this man and report upon his case. The following is the reply which I received:—

"February 16th, 1868.

"DEAR SIR,—In reply to your's of the 14th inst., respecting the present condition of Mr. Harris' leg, I may observe that it was the decided impression and remark, both of Dr. Ireland and myself, that we had never seen an instance of fractured patella in which the broken portions had been kept so well together, and united so closely as in his case—posteriorly they must be quite in apposition. In our report on Mr. Harris, we recommended that he should not be appointed for duty for a period of six months at least, but

at the end of that time we hoped that he would be fit for service.—I am, dear sir, your's faithfully,

"HENRY LONEY, Surgeon."

An assistant-surgeon in the Royal Navy, who visited this patient a few days ago, called upon me subsequently, and I asked him to write me a letter stating his impression of the case. He writes as follows:—

"20, Lr. Gardiner-street, February 20th, 1868.

"DEAR CROLY,—I called yesterday to see Mr. Harris of the Revenue cutter 'Racer,' who sometime since fractured his patella, for which I believe he has been under your care. I have seen a great number of these fractures, both during the time I was a student, and since I entered the Naval service, but never met a case before, where such close union had taken place, in fact without an accurate examination it would be rather difficult to say which patella had been fractured. This one case alone ought, I think, to demonstrate the superiority of the 'Hook' treatment over the old splint and bandage.

"Wishing you a like success with all your cases.—Believe me, your's sincerely,

"THOMAS H. ATKINSON, Assistant-Surgeon,
"H.M.S. 'Martin.'"

I beg also to remind the society that I said I did not wish, in bringing forward this subject, to decry the ordinary methods used by Sir Astley Cooper and other eminent surgeons in the treatment of fractured patella; that I had seen good results from the usual modes of treatment; but that in this special case the separation was so great after several days as to allow the two fingers to go between the fractures, and the patient would not submit to the bandages, saying he could not bear them, although he was warned that the consequences would be permanent lameness. I then told him about the hooks, and that I had had no experience in using them, but he agreed that they should be tried, and I brought forward the case only for the purpose of showing their usefulness, and without intending to disparage other methods. I also referred to a table published by Mr. Pyle, House-Surgeon of the Middlesex Hospital, in which he records ten cases treated by Malgaine's hooks, and ten treated by the ordinary methods. In not one of the former was there irritation, and there was close union; while in all the other cases there was an unsatisfactory result. In the *British Medical Journal*, a fortnight ago, I find a case recorded by Mr. Campbell de Morgan, in which he had used Malgaine's hooks successfully; and in the *Medical Times and Gazette* of February 15th, 1868, I find two cases of fractured patella treated with Malgaine's hooks—one recorded by Mr. Partridge, of King's College Hospital. He says—"One of the most curious of fractures is fracture of the patella. If a patella be broken transversely it unites by bone if properly treated. Now, this has been denied—nay, is still denied by the majority of surgeons in the United Kingdom. But all other fractured bones unite by osseous tissue: then why not fractured patella? In truth they are no abnormalities; they unite by good sound bone. But then, to effect this result the fragments must be kept in close apposition. By the ordinary plan this cannot be accomplished, consequently no good bony union can be obtained." Then Mr. Partridge says that "Malgaine's method for producing union between the fractured fragments of the patella is entirely forgotten (not given up) in the land of its birth, yet the following cases will fully testify that the hooks have been and are still a great success at King's College Hospital:—*Case* 1.—Jane H., 46 years of age, admitted to King's College Hospital April 2nd, 1866, with transverse fracture of the right patella. The accident happened in consequence of a false step made while descending a flight of stairs. The fragments separated three-fourths of an inch. The house-surgeon put in the hooks above, and brought the fragments into close apposition. Little pain, no swelling of knee, and no irritation about the wounds made by the hooks in the skin. She was removed on the 15th of May, and it was found that the fragments had perfectly united by bone, at least it then appeared so. The patient presented herself in two months. No trace of fracture could be detected, and she said she could walk as well as ever. Alfred B., 36 years of age, admitted January 4th, 1868, with transverse fracture of the right patella. He slipped backwards, suddenly straightening his leg, the break happened. The fragments separated two fingers' width. It was found that the left patella was broken transversely six years previously; the pieces were four inches asunder. This left patella had not been treated with hooks. The house-surgeon applied the hooks, and brought the fragments into close apposition; a straight splint was applied, and up to the present time, February 10th, no injury has been caused by the hooks." With regard to the way in which this fracture generally occurs, I quoted from Holmes' "System of Surgery" a statement that there was a difference of opinion between French and English surgeons. Sir William Fergusson says—page 391 of his admirable work on "Practical Surgery"—"The patella is frequently broken, the injury being in general the result of violent action of the muscles in front of the thigh, as when a person endeavours to prevent himself from falling forward." Liston believes transverse fracture to be the result of muscular action. Sir Astley Cooper says "fractures of the patella commonly happen in the transverse direction, and are caused by the powerful action of the extensor muscles of the leg. Mr. Adams, in his valuable paper on abnormal conditions of the knee-joint, in Todd's Cyclopædia, says—"Longitudinal fracture of the patella is rare, and this and the comminuted are generally the result of direct violence; and, although the transverse fracture may depend on a similar cause, still the violent contraction of the extensor muscles is the most frequent cause of the accident. A case is recorded of a soldier who broke his patella in endeavouring to kick his sergeant. In the operating theatre of the Hôtel Dieu, both the knee-pans of a patient were broken by violent spasms of the muscles which followed an operation for the stone. For the production of a transverse fracture of the knee-pan, the extensor muscles of the leg need not act with convulsive force, their ordinary action being strong enough to produce the effect in question when the body is inclined backwards and the patient is in danger of falling upon his occiput."

Sir Charles Bell says—"The fracture of the patella, or knee-pan, happens in consequence of a *sudden*, and very strong, *action of the four muscles* which are inserted into it, while the knee is in that degree of *flexion* that the patella is raised upon the convex surface of the lower end of the femur. Sometimes the patient observes that the crack of the fractured bone was *before* he fell to the ground; while, for the most part deceived in the circumstance, he *supposes* that in striking the ground the knee-pan has been fractured." Syme, in his "Principles of Surgery," says—"Transverse fractures occur from inordinate contraction of muscles. When from direct violence it is comminuted."

Miller, in his system of surgery, says—"The simple transverse fracture is the result more frequently of muscular action than direct injury." Gray, in his work on anatomy, says—"Fractured patella, from muscular action, is transverse. When from direct violence, it is fractured obliquely, or comminuted." Pirrie, in his principles of surgery, says—"It is a popular mistake that the fall is the cause, whereas it is the consequence of the accident." In the new surgical dictionary, by Lane, the author says—"Transverse fracture of the patella, though it may originate from a blow, is in all common cases the result of violent action of the muscles." Mr. Holthouse, in his article on fractured patella, says—"Of all the bones of the skeleton, the patella is most liable to be broken by muscular action." Again, "Fractures of the patella, by muscular action, are always transverse." Costello, in his Cyclopædia of Surgery, says—"Fractured patella, by violent action of the muscles, are always more or less transverse." Having seen many cases of fractured patella, I was always impressed with the idea that the patient's knee did not strike the ground before the fracture took place, and that the fall was occasioned by the fracture, and not the fracture by the fall. I have two patients now here who can be examined by the members of the Society at the close of the meeting. One of them was treated by the hooks, as I have already stated. In the other case the man slipped down an inclined plane, and, in trying to save himself, fractured the patella, and then, when he went down, fell on his head.

Mr. HEWITT said he attended at the hospital with Mr. Croly when he first treated this case, and saw the fractured patella put up in the usual manner with the figure of eight bandage and the splint. He had seen, through the kindness of other surgeons, several cases of fractured patella, and he saw one remarkable case, which Mr. Croly would remember, in which the bone was fractured three times, ligamentous union having occurred, and the bone being subsequently broken across. He saw this case put up with Malgaine's hooks, and there could be no doubt that the fragments of bone had been brought closely together. The patient merely complained of a tickling sensation, and said that the bandage which he had on before, and which was applied with the greatest skilfulness and accuracy, gave him pain, uneasiness, and distress, whereas the hooks gave him none whatever. Mr. Croly had not brought

forward this case with a view to disparage other modes of treatment, but to show that in some cases Malgaine's hooks would be found of great use. In this instance they produced no irritation whatever, and brought the fragments together in the most perfect manner.

Dr. KENNEDY observed that fracture of the patella had been known to have occurred from muscular action in cases of tetanus. With regard to bony union in such cases, he should say it was extremely rare. So far as he was aware there were none of these cases which presented any appearance of callus; and in a bone like the patella, where there was very little covering, it struck him as strange that there had been no case brought forward of anterior callus if there were true bony union. Under the circumstances he thought it was not yet uncontestably proved that bony union had taken place. Even in the case brought forward by Mr. Croly on the last night there was a distinct sulcus in the patella.

Dr. BENSON said there was a specimen in the museum of a transverse fracture of the patella in which bony union had taken place. He thought Dr. Kennedy was mistaken in saying that there was a distinct depression in the bone itself. He (Dr. Benson) examined the man and could not find the slightest separation between the bones. It was true one fragment was elevated a little above the level of the other, and in the cast of the joint it gave the appearance of separation; but as far as he could observe in the living person there was no separation between the fragments. On running the finger over the patella in one direction a little eminence, caused by one fragment standing a little higher than the other could be felt; but in running the finger in another direction it was not perceptible. After having seen many hundreds of fractures he had never met one in which there was more perfect union than the present; he did not mean bony union, but a firm union.

Mr. MORROGH had been a quarter of a century in the service, and had seen a great many fractures of the patella generally arising from muscular action. He did not remember ever seeing such perfect union as existed in this case, at least judging from the cast. He paid particular attention to the observations of Mr. Croly the other night, and he did not hear him use the words osseous union.

Dr. MAPOTHER observed that on physiological grounds he would be inclined to argue that bony union could not take place in cases of fractured patella; but these theoretical grounds were set aside by what he remembered to have read in Packard's able translation of Malgaine's work on fractures. Many dozens of instances of transverse fracture of the patella were stated there as having been united by true callus, proved by dissection. The translator agreed with the French author in thinking the fracture was generally caused by falls on the knees, and direct violence, rather than by muscular action. He thought Mr. Croly's paper, an abstract of which only he had heard, was extremely valuable, for the circumstances of fracture of the patella differed completely from those of fracture of a long bone such as the femur. In the latter the muscular tendency was to make the fragments over-ride; in the former there was no muscular action to produce that effect, and something was required to keep them together. Mr. Croly was not the first to use Malgaine's hooks in Dublin. He (Dr. Mapother) had seen the hooks in St. Vincent's Hospital which had been tried there, but he believed not successfully in Mr. O'Ferrall's practice in that hospital.

Dr. BARKER observed that the specimen in the museum was one of half a patella, in which there was a transverse fracture united by bone. As it was the only specimen introduced into that large museum within twenty-five years, it proved that bony union in cases of fractured patella was very rare indeed.

Mr. B. W. RICHARDSON said that he had seen Mr. Hamilton use Malgaine's hooks in the Richmond Hospital many years ago.

Mr. FLEMING said that during his connection with the Richmond Hospital he never saw Malgaine's hooks used, and he had seen a great many cases of fractured patella which turned out satisfactorily. After a time, however, when the limb was used, the ligamentous structure stretched, and he would strongly suspect, even in the case brought before the society, that a similar result would follow, if great care were not observed. In one case which came under his notice there was partial ankylosis of the joint, that is to say it was incapable of flexion, and with a view to remedy it, mischief was done by attempting to flex the joint; the result was that separation took place between the fragmentary portions, although some months had elapsed since the occurrence of the accident. Malgaine's hooks had been used in Steevens' Hospital on one or two occasions, but for a series of years he had not seen them used there. In treating a case of fractured patella by Malgaine's hooks, he would be apprehensive that a portion of the integument might dip itself within the interspaces of the fragmentary portions. They knew that in some of these cases, no matter how closely the fragments were brought together, a sulcus was left which might produce mischief.

Mr. CROLY, in reply, said he had never seen Malgaine's hooks until he got them from Weiss, of London. Some of the books in giving directions for using the hooks said that they should be stuck into the upper edge of the patella. That was, however, objectionable, for it was apt to slip down. If that mistake, which was committed by the books, were made by the surgeon the operation would fail, and he would be obliged to take out the hooks, for they would tear the skin over the patella. Having taken care to ascertain the exact place of the patella, he sunk the hooks in above it, so that the cavity of the hooks embraced the edge of the patella; the lower hooks he fastened into the ligamentum patellæ, and then put on the screw and brought the fragments together, taking good care to prevent the skin being dipped in. Malgaine asserted that the figure of eight bandage and the collar were objectionable, because one would depress the upper edge, and the other would depress the lower, the result being that the anterior ends were not brought in contact, while the posterior ends were. The figure of eight bandage would tilt the ends forward, whereas, by the hooks, and he could say this even from having used them only once, the contact was perfect. He should be sorry to say positively that bony union had taken place in a bone which was not considered to belong to the skeleton; but if surgeons say that a vertical fracture can unite, he did not see why the same should not be said of a transverse fracture. Dupuytren said he dissected a patella, and found pyramids of bone between the fragments. He thought, therefore, it was quite possible that bony union could take place. He did not say there was ligamentous union in this case; neither did he say there was bony union. He had his own ideas on the point however, and he promised the society if the fragments ever separated to his knowledge he would inform them of the fact. As to allowing the patient to bend the knee soon it was an error. He did not think there was any fear of ankylosis in these cases.

(To be continued.)

Correspondence.

PLURAL BIRTHS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The following case of plural births may be interesting to your readers, if so I shall feel obliged by your inserting it.—I am, sir, your very obedient servant,

GEORGE M. MAYBERRY, M.D.

Riversdale, Kenmare, Feb. 24, 1868.

"Margaret Gallivan, labourer's wife, aged 33 years, of delicate and emaciated appearance, married eleven years, had four children previous to her present confinement, the youngest over two years old, got ill in labour on the night of the 6th inst.; called on me to see her, Friday the 7th inst., when I found she had given birth to a child sometime before I arrived; she was much exhausted, and showed great general debility; quick and weak pulse; considerable thirst; had no labour pains then. I found the abdomen prominent, and on examination per vagina perceived with some trouble and difficulty the natural presentation of a second child; she was so weak, I had to keep her up with strong beef-tea and wine. She continued without any pains or progress in labour until Sunday the 9th inst., when pains came on, labour had so far advanced that I ruptured the membranes, being unusually thick and tough, and soon after she was delivered of a second child. Her weakness continued to an alarming extent; beef-tea, wine, brandy, &c., continued, given her frequently, and increased; all labour pains ceased, although the abdomen was still a little prominent, no presentation to be felt at this stage, and had much difficulty in keeping up her strength until Monday morning, the 10th inst., when she was delivered of two more children, having rather smart previous pains. In all four, one son and three daughters, all alive and baptised. Very soon after the fourth infant was born the placentas came away without any trouble or hæmorrhage. The placentas were in size apparently in

proportion to that of the four infants; the weight of the latter were, average, three pounds each. I must observe, the placentas of the 1st, 2nd, and 3rd child born appeared, although separate, so knitted together at their base that one could not be separately taken away, if extraction of the first was considered prudent. The placenta of the last child born was altogether separate. The poor woman's debility was so serious throughout her illness, that with difficulty crowds of her friends and acquaintances could be kept from entering her little cottage, considering, as they did, she was dying. The mother is now quite recovered from her alarming confinement.

"1st child born lived 8 hours.
"2nd do. 60 hours.
"3rd do. 44 hours.
"4th do. 16 hours."

Riversdale, Kenmare, February 24th, 1868.

SIR,—The enclosed communication I have the honour of receiving with £4, the charitable and kind donation of the Queen, to be given Margaret Gallivan, the poor labourer's wife near this town, on whom I had been lately in attendance, when she gave birth to four children. I am happy to say the woman, who I have seen this day, is now out of danger.—I am, sir, your very obedient servant,

GEORGE M. MAYBERRY, M.D.

"Buckingham Palace, London,
"February 21st, 1868.

"Major-General Sir Thomas M. Biddulple has received the Queen's commands to forward to Dr. Mayberry the enclosed post-office order for £4, payable to him, and to request that he will have the goodness to cause the amount to be safely delivered to the wife of Timothy Gallivan, as a donation from her Majesty to assist her after her confinement of four children at one birth, that circumstance having been brought under her Majesty's notice, through the application which Dr Mayberry addressed to Sir Thomas Biddulple on the 10th inst.

"To George M. Mayberry, Esq., M.D.
"Riversdale, Kenmare, Ireland."

NOTICES TO CORRESPONDENTS.

Messrs. BLACK, Edinburgh.—No review of the book you mention has yet appeared. We have it now under notice.

CONSANGUINITY.—A correspondent sends us the following question, which he hopes may be answered by some of our numerous readers, whose opinions may have been formed by careful observation:—"If first cousins are healthy, and intermarry, will their offspring suffer as a consequence of their relationship, or will such union in any way contribute to disease?"

Dr. SMITH, Monkwearmouth, is thanked for his kind expression for our success.

Dr. S., Buttevant.—It is not necessary.

Communications, &c., received from S. Atherton, Esq., Thalto Heath; T. Clarkson, Esq., Ripley (enclosure); E. F. Bean, Esq., Ashburton (enclosure); Rev. W. H. Cartwright, Dudley (enclosure); Messrs. Black, Edinburgh; Dr. Wilshire, London; Mr. J. S. Moseley, Shindrove (enclosure); J. J. Dear, Esq., London (enclosure); Mr. Redford, Masbro'; Mr. Lyson, Wath; Dr. Camps, London; Executors of Dr. Cust, Barnard Castle (enclosure); Dr. Agar, Ponders End (enclosure); Dr. McGrigor Croft, London (enclosure); J. Blake, Esq., Taunton (enclosure); Dr. Bridge, Wellington (enclosure); R. H. Barker, Esq., Hungerford (enclosure); Dr. Shaw, Flanderswell (enclosure); Dr. Corbet, Stanford-le-hope; L. Dashwood, Esq., Norwich; Dr. Couch, Swansea; Dr. Von Tuszelmann Rumson (enclosure); Dr. Chater, Tenby (enclosure); Mr. J. Baker, Exeter (enclosure); J. Smith, Esq., Monkwearmouth (enclosure); Dr. Barker, Brighton (enclosure). Dr. Rose, Diss; the Secretary of the Harveian Society; Dr. Dysart Portlegnone; Dr. O'Sullivan, Dunmore East; Dr. Crean, Clonmel; Dr. Warren, Ringaskiddy; Dr. Duigan, Mullingar; Dr. Ridley, Tullamore; Dr. Kenny, Killeshandra; Dr. Peirce, Newcastle; Dr. Kearney, Carndonagh; Dr. Rawson, Carlow; Dr. Salmon, Castlepollard; Dr. Pentland, Drogheda; Dr. Furnell, Limerick; Dr. Walsh, Clogheen; Dr. Keirnan, Carrick-on-Shannon; Dr. Lane, Newtownlimavady; Dr. Williams, Dingle; Dr. Ryan, Ballinacally; Dr. Frame, Coomber; Dr. Mulligan, Newry; Dr. Wanall, Adare; Dr. Gillespie, Clones; Dr. Reynett, Portlaw; Dr. Burke, Limerick; Dr. Barter, Cork; Dr. Haines, Midleton; Dr. Johnston, Riversdale; Mr. Sprott, Matlock (enclosure), &c.

APPOINTMENTS.

Dr. ALEX. SILVER has been appointed Assistant-Physician to Charing-cross Hospital. It is also stated that he will take the chair of Forensic Medicine at that institution.

Dr. MAUNSELL, of 53 Harcourt-street, has been appointed to the chair of Botany in the Ledwich School of Medicine and Surgery, vacant by the death of the late Dr. Askens.

DEATH.

PUREFOY.—On February 16th, at the Medical Officers' Quarters, Calcutta, on his way home, Assistant-Surgeon J. R. Purefoy, Royal Bengal Army, the loved and lamented son of T. Purefoy, Esq., M.D., &c., Lucan, Co. Dublin.

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DEATH VACANCY.—The succession to a Country Practice in a pleasant district in the Home Counties is open for negotiation. The receipts have averaged £380 per annum. Appointments £102. Address X. 242, Mr. Langley, as above.

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IN a Large Town, an old-established high-class Practice, with valuable honorary appointments, for Transfer. Receipts £800. The Practice is non-dispensing, and capable of great increase. The successor must be a good Obstetric Surgeon. Address X. 231, Mr. Langley, as above.

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The Next Examination will commence on TUESDAY, April 14. Gentlemen who have completed four years of Professional Study, according to the College Regulations, are eligible for admission to this Examination.

Registered Medical Practitioners, qualified before January, 1861, are admitted to Examination under special by-law.

Candidates are required to give fourteen days' notice in writing to the Registrar of the College, with whom all Certificates and Testimonials required by the By-laws are to be left at the same time.

Pall-mall East, 1868. H. A. PITMAN, M.D., Registrar.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE Council have the pleasure to announce that the Right Hon. the Earl GRANVILLE, K.G., President of the College, has kindly consented to take the Chair at the FIFTEENTH FESTIVAL of the College, which will be held at Willis's Rooms, King-street, St James's, on Wednesday, the 13th of May next. Dinner at half-past six o'clock.

Gentlemen who are willing to serve as Stewards on the occasion are requested to send their names to the Secretary, at the Office of the College in Soho-square. No pecuniary liability is incurred by the Stewards.

By Order of the Council,
ROBERT FREEMAN, Secretary.

37, Soho-square, London, March 18, 1868.

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30th November, 1867.

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OMAGH DISPENSARY DISTRICT.

OMAGH UNION.

THE COMMITTEE of the above DISPENSARY DISTRICT will, at their meeting to be held in their Committee Room, Omagh, at one o'clock, on SATURDAY, 28th March instant, proceed to elect a properly qualified person as MIDWIFE for the Western Division of the above District, at a salary of £20 per annum.

Applications, accompanied by certificates of competency, to be lodged with me one hour before time of meeting. Personal attendance of candidates indispensable.

By order,
A. RODGERS,
March 9, 1868. Hon. Sec. of Committee.

LURGAN UNION.

MEDICAL OFFICER WANTED FOR THE MOYNTAGH SUB-DISTRICT OF THE LURGAN POOR-LAW UNION.

THE Committee of Management of the LURGAN DISPENSARY DISTRICT will, at a Meeting to be held in the DISPENSARY, LURGAN, at Three o'clock, on THURSDAY, the 9th day of APRIL, elect a properly qualified Candidate to the above appointment.

Salary (exclusive of Vaccination and Registration Fees) £100 per annum.

Residence in the Sub-District indispensable.

Papers and Testimonials to be lodged with me before ten o'clock on the morning of the Election, and Candidates must be in attendance.

By order,
JOHN HANCOCK, Hon. Sec.

The Manor House, Lurgan,
County Armagh, 12th March, 1868.

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The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 1, 1868.

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CLINICAL REPORTS.

By EDWARD HAMILTON,

ONE OF THE SURGEONS TO STEEVENS' HOSPITAL.

REMARKABLE TUMOUR AT THE BASE OF THE TONGUE.

A FEMALE, aged 20, presented a peculiar morbid growth on the dorsum of the tongue. It was lobulated, and had the translucid appearance so often exhibited by gelatinous polypus of the nose. It impeded deglutition and speech, but caused no pain, and was chiefly troublesome from a feeling of discomfort, and a constant desire to swallow. The mass was easily exposed to view by depressing the tongue, and appeared pedunculated, situated in front of the left glosso epiglottic fold, and suggested the idea of a circumvallate papilla, immensely hypertrophied. She stated that she perceived it about six months before, but that within the last month its growth was most rapid. Its removal was easily effected by the ordinary chain ecraseur.

UNUNITED FRACTURE OF THE FEMUR, TREATED BY BICKERSTETH'S METHOD.

M. C., a strong and well-developed man, about 40 years of age, eleven months previous to his admission sustained a fracture of the left femur at the junction of its middle and lower third. For this he had been treated with the long splint during six weeks, the starch apparatus being then applied for a fortnight. Subsequently the limb was a second time placed in splints, and then in gypsum. On admission there was very distinct mobility at the seat of fracture, the femur bending at an angle, and yet by a vigorous muscular effort he was able to raise the limb from the bed, but it was totally useless for the purposes of progression; on examination there was found to be great over-lapping of the ends of the bone, the lower extremity of the upper fragment projecting backwards considerably and approaching the skin. The limb was fully one inch and a-half shorter than the sound one.

An incision was made from behind, down to the surface of the upper portion, and the drill applied until this was perforated, and then pushed forward until its point was felt against the lower fragment, into which it was worked; as soon as it had fairly entered, and the rotation of the drill became impeded, the stock was removed, leaving the drill as a peg, pinning the ends of the bone together, transfixing the posterior, and impacted in the anterior fragment.

The limb was invested with layers of cork carpet, which I find a most convenient and manageable appliance in the treatment of many cases of fracture, holes being cut to admit of the escape of the free end of the drill, also permitting discharge to come freely through, and was laid on an inclined plane. No disturbance, local or constitutional, followed the operation, a trifling amount of suppuration flowed from the opening, but caused no trouble; in 25 days the drill dropped out, and in two months he left the hospital with the fracture firmly consolidated.

DISLOCATION OF THE HEAD OF THE FEMUR ON THE DORSUM OF THE ILIUM REDUCED BY MANIPULATION.

A labourer, æt. 45, presented all the symptoms and appearances of dislocation of the head of the left femur upwards and backwards. A week previous to his admission he was severely injured by the falling of a bank in a quarry, where he was working. Some attempts were made at reduction previous to his admission, but the deformity was still distinctly characteristic of the dislocation. As he lay in bed *without chloroform*, the ankle was grasped by the left hand, and the knee by the right, the thigh was flexed on the abdomen, as far as possible, to the right side, then abducted and everted. On the second trial the head of the bone was felt to enter the acetabulum, and the limb restored to its natural shape and movement. He left the hospital in a week, having perfect use of the leg. Some time ago Dr. Wharton and I brought under notice of the Surgical Society of Ireland cases which proved the value of this method proposed by Dr. Reed, and I am convinced that were it more generally known, and practised immediately on the occurrence of the accident, it would be attended with the most marked success.

CONTRACTION OF THE ORIFICE OF THE URETHRA, OPERATION BY COLLES' METHOD.

R. E., 39 years of age, contracted gonorrhœa about two years ago. There was at the time much pain at the end of the urethra, with occasional discharge of blood, and soreness. After the subsidence of the disease, a thickening was felt on the under surface of the urethra at the orifice, and gradual increasing constriction followed. The opening will now barely admit an

ordinary probe. Micturition is very slowly accomplished, and a part of the urine remaining in the urethra and dribbling away, causes him increasing annoyance and discomfort; having frequently observed how little this special form of stricture is amenable to the ordinary modes of treatment, the following operation was practised:—A fine director was introduced into the urethra, and its lower wall divided for about three quarters of an inch, the cut surface on each side was then scooped by dissecting away a portion of the corpus spongiosum with a curved scissors, the edges of each surface were thus easily approximated, and retained by sutures of horse-hair. Cold was constantly applied, and small doses of tartar emetic administered with a view to guard against erection.

The horse-hair suture is especially adapted for operations in this situation, as it will not corrode like wire, nor soak the urine like silk; it must be introduced a good distance from the edge, or it may cut out too soon.

REMOVAL OF THE BREAST—EMPLOYMENT OF TORSION.

B. K., married, aged 34, has had two children; presented a florid complexion, and very healthy aspect; she complained of a tumour in the right breast of three months' duration; the nipple was retracted, hard, and wart-like; the surface of the skin for some distance was thickened, and of a dusky hue; she complained of occasional lancinating pain; there was no enlargement of the axillary glands; the case thus seemed a most favourable one for operation, which was accordingly performed in the usual way, removing a large segment of skin; the vessels, which were numerous and large, were caught and twisted with Syme's torsion forceps, an instrument which I had an opportunity of seeing, through the kindness of Professor Tyrrell, of the Mater Misericordiæ Hospital. In all the operations recently performed at Steevens' Hospital, this mode of arresting bleeding has been exclusively adopted; even in a case of amputation of the thigh last week, by Mr. Colles, the femoral trunk was the only vessel secured by ligature, all the others were sealed in the most expeditious and efficient manner by torsion, and in no single instance has there been the least appearance of secondary hæmorrhage. No pocket-case should be without this instrument, as almost superseding the ligature in the treatment of bleeding from recent wounds. The wound was sponged with chloride of zinc, after the plan of M. De Morgan, using a weak solution, a practice which my experience leads me to regard most favourably: it arrests the weeping from small blood-vessels, cleanses the wound from clots, and produces an instantaneous glaze, very conducive to immediate union; the tumour, on examination, presented all the characters of schirrhus cancer.

ON VIVISECTION.

By HENRY MAC CORMAC, M.D.,
CONSULTING-PHYSICIAN TO THE BELFAST HOSPITAL.

ANY needless or avoidable severity, in respect of the lower races, is an inexcusable abuse of the power which has been lent to us. In some it seems to spring from want of thought, in others from the absence of both thought and feeling. The brute is treated as if stripes and blows made no impression upon him. At the butcher's, one hardly sees a carcase that is not disfigured by weals, and yet increased commiseration for animals would seem one of the characteristics of the times. Cruelty to the brute is a direct infringement of the law of God, and cannot be indulged in without injury to our better nature. Humanity to animals should be a public charge; paid inspectors ought to be appointed by the State. The butchering business should be alone confided to competent well conducted persons, and every reasonable precaution taken to check the tendency to abuse. The doings reported at the veterinary school at Alfort, are simply infamous. Every desirable result might be accomplished, and with comparative immunity from suffering. Animals recently slaughtered, I submit, should alone be operated upon, and anæsthetics resorted to, so as to ensure a painless death, or, at any rate, the insensibility which for the time excludes all appreciable suffering.[1]

Making every reasonable concession, vivisection has not, I opine, been productive of the many and great advantages which have been claimed for it. In certain instances it is just possible that operations performed on the brute might serve to lessen the risk and suffering incurred by the man. Some, indeed, would justify vivisection on the plea of veterinary education. Anatomical and physiological knowledge is needful in equine as in human pathology, but neither one nor the other need involve the cutting up of brutes alive. Hippopathology does not demand this cruel alternative any more than does human pathology. What, for example, has vivisection to do with the successful treatment of cattle plague? and yet it has been absurdly urged as subservient. "If veterinary surgeons," exclaims M. Diday, "cannot be made in two years without vivisection, in mercy's name let them have four, and so spare the hapless brute. To torture animals is but an apology for ignorance, and to the properly instructed pupil, surely vivisection is superfluous."

Vivisection did not determine the uses of opium, quinine, antimony, ether, or chloroform, or those of the freezing mixture or ether spray. It did not enable Fabricius to notice the valves of the veins, and thence conduct his pupil Harvey to the brilliant induction of the major circulation, which, as Harvey himself remarked, could not as thus be otherwise. Hence, as Gerdy in his Account observes, this greatest of physiological discoveries was due in the first instance to reasoning and observation alone. It was not, indeed, vivisection that proclaimed the prophylactic efficacy of matter from the cow. Nor was it vivisection that led me to the immense deduction, as I hold it, that tubercle is no other than the unoxidised residue of the interstitial carbonaceous waste, thus enabling us, as I assume to have proved, to stamp out consumption and scrofula when we will.[2]

Precious as are the discoveries in physiology, we are bound to compass them with as little animal suffering as possible. Some forty and odd years since, aided, indeed, by vivisections, Bell announced, and Magendie, himself a great offender, confirmed, that of nerves issuing from the spinal marrow, the anterior controlled motion mainly, the posterior mainly sensation. Magendie showed that the motor nerves, owing to the presence of minute fibres of the nerves of sensation, were also sensitive. This Longet, after 330 experimental trials, denied; while Magendie, singularly enough, became himself no longer able to detect it. Here, however, Claude Bernard stepped in, and showed that when the dogs and cats whose spinal marrows had been laid open were allowed, unhappy creatures, to recruit and rest a little, the sensibility in question became plainly apparent.

A complete revolution, Brown-Séquard affirms, has accrued in medicine from the study of physiology as based on vivisection. Among others, he adduces a case of paralysis of motion from the neck down on the right side, coupled with extreme sensitiveness, a rise in temperature, and a more rapid circulation. Sensibility was abolished on the left side, but the power of motion subject to the will remained intact. Here there had ensued transversal division of the right lateral half of the spinal cord, inclusive of the posterior and lateral columns in the neck. As the nerves of voluntary motion on the right side pass along the right side, and those of the left side on the left, the division of the spinal cord as described produced loss of motion on the right side only. But as the nerves of sensation pass to the opposite side, loss of sensation on that side, the cord being divided as stated, was the result. When the medulla oblongata is subjected to pressure from

1 The Painless Extinction of Life in Animals designed for Human Food. London: Longmans & Co. 1864.

2 Consumption, as engendered by re-breathed air, and consequent arrest of the unconsumed carbonaceous waste. 2nd ed. London: Longmans, Green, and Co. 1865.

some morbid growth or tumour on a level with the decussation of the anterior pyramids—say on the right side—it would affect the fibres of voluntary motion before they decussate, as well as those from the left side, which have already decussated, inducing paralysis on both sides, but leaving the blood-supply and lesions of sensibility as before. Injury of the pons varolii implicating the trigeminal, facial, and sixth pair before decussation, also induces paralysis on the injured side. Caries of the petrous bone at the base of the brain, with other forms of local disease, leads to paralysis. There is also reflex paraplegia, owing to reflex irritation, implicating the fifth pair and otherwise. Here, however, Brown-Séquard admits obscurity and contradiction, so that, taking everything into consideration, vivisection, motives of humanity aside, does not seem superior, in respect of imparting information, to ordinary observation. Indeed, Brown-Séquard speaks of having divided the par vagum, and of crushing the ganglions of the sympathetic in the abdomen, with no other result than occasional derangement of the heart's action. Was this, then, sufficient to justify such operations, or would the heart's action of any living creature remain as thus underanged ?

But other procedures entailing hardly less suffering have also been had recourse to. Thus strychnine which induces violent spasms, and curara, paralysis of the muscles, have been exhibited. The latter substance may be swallowed with impunity, but oxen when wounded with arrows dipped in it die, unless artificial respiration be maintained, in about 20 minutes. The Indians who know nothing about this, resign themselves, Humboldt tells us, as to inevitable death when the curara or woorara gets into their blood. The heart continues to beat even after the muscles of voluntary and semivoluntary motion have been paralysed by this death dealing substance. But the heart's action, it has been ascertained, itself ceases through the yet more fatal influence of the cyanide of potassium.

On the whole, then, vivisection, whether with the knife or, if I may be allowed the expression, with other destructive agencies, has not shed that perfect light on the functions, whether in health or disease, which was at one time so sanguinely anticipated. If indeed the practice must be continued let it at least be restricted to men of science and education, and not delegated to bunglers and beginners as at Alfort, where unhappy brutes have been mangled for hours. Vivisection in fact has too often been undertaken with the vague idea of compassing a quite inaccessible knowledge. A wise ignorance is surely preferable to an unwise pretention. For things there are of which, by the very constitution of our faculties, we must perforce remain ignorant for ever; and it is not by mutilating the wondrous apparatus subservient to animal existence that we shall evade the secret barriers that encompass life and organisation. Structure and function, in animated nature, must be studied as one. How is the disruption of living organs, with the severment of their exquisite and, in truth, indispensable nexus, to yield the knowledge which, so far as it is accessible at all, must be sought for in the observation not of broken but of harmonious function, not of a portion but of the integral whole. We shall never, I am persuaded, light up the arcana of being by mutilation. The conditions of existence will be better appreciated by surveying them in the concrete, than by resorting to procedures which harass our sympathies and hardly satisfy our reason.

There are operations, however, vivisections in all but the name, to which horned cattle, sheep, swine, horses, and even fowl, are subjected with the view, real or illusory, of rendering them better fitted for human requirements, operations conducted without the aid of any anæsthetic, in a fashion so rude and on a scale so extended as to entail greater suffering, were it in a single day, than have done all the vivisections bearing on science since science has had a name. To these operations, as thus conducted, the world with its usual inconsistency hardly if at all adverts. And yet no plea short of necessity justifies the infliction, were it of a single avoidable pang, on creatures which, in respect of their many and in truth exquisite endowments approach and perhaps in some respects excel ourselves. Alas, we are cruel to the lower races as we are cruel to our own kind. In what respect indeed is the deep and deadly laceration of the scourge, with branding, gagging, hanging, and the guillotine, less flagrantly reprehensible than vivisection. In truth we are all too merciless to the beings which surround us, violating thus the divine and never with propriety to be evaded obligation of inflicting no needless pain, no cureless ill.

Some would have us to believe that the inferior races do not feel as we do. Alas, they experience suffering, a little more, a little less, even as we experience it. For pleasure and pain are as janitors at the portals of existence, janitors without whose ceaseless vigilance neither reason nor instinct could keep watch were it for a day. All warm-blooded animals at least, the infliction being applied, experience pain, for pain is among the safeguards of the organism. The little Jew or Musselman boy suffers as much during the barbarous operation of circumcision, as did and do the victims of the other equally brutal mutilation, perpetrated with the view of creating singers in Italy and eunuchs in the east. Who shall sum up the torture inflicted on Chinese women, from the insensate crushing of the tender structures of the foot in infancy, on the women of Europe, by reason of screwing in the chest until the ribs flatten, and the spine lose its tapering symmetry. Animals have been seen to eat, just after torturing operations and cruel accidents, and therefore, says Brown-Séquard and others, do not undergo much if any suffering. But not to dwell on the endurance of American Indian, who have been known to sing and declaim under tortures and of Hindoo widows who lie down to be burnt alive, I have known men to converse calmly and even smoke during the removal of a limb. I was close by when Dupuytren operated on a little boy for the stone. The child had been promised some present if he abstained, and, I remember, evinced such fortitude, as never once to utter a cry or a moan. Will any one, therefore, in such instances, allege that there is no suffering. Ah ! there are things about vivisection that cannot be committed to paper, the agonising, if inarticulate intreating, the groans, the pantings, and the cries, the paws even of poor brutes being cast round the neck of the hardened operator. The dog, which ordinarily or even extraordinarily, never sweats, does so, it has been stated, profusely, under the vivisector's knife.

Animals during the process of their conversion into food, are deprived of life with almost every painful and barbarous accompaniment, not in Britain only, but wherever the employment of their flesh for nourishment extends. And yet, so long as consciousness subsists, the slaughtering process is a vivisection in everything but the name. Throats are cut, the poor brutes are stabbed, their skulls, ah, me, are driven in, with what anguish, who can say, as life ebbs slowly, all too slowly away. The manner in which cast and worn-out horses are treated in knackers-yards in London, and in Paris at Montfaucon, is difficult or impossible to realise. A thousand forms of nameless and unspeakable cruelty, indeed, flash upon my recollection and call, if only I could supply time and space, for mention. A few years since infamous wretches used to prowl about London streets, entrapping and skinning cats alive, which they then left to stagger about till they expired. Birds, rabbits, hares, are mangled by thousands, to pamper a cruel and unwholesome vanity. Even wild animals are followed and needlessly slaughtered in the waste. For years calves taken from green pastures and pent in some filthy cellar, are stuck from time to time by the butcher or his boy, and bled till they fall upon the gory floor, in order to gratify, by a factitious and superfluous whiteness the palate of persons who, perhaps, during the very repast, take occasion to descant on the cruelty of vivisectors.

And yet animals, as I have shown, may be deprived of life by a procedure at once so painless and effective as, I submit, to do away with every plea for the infliction of

needless suffering. This procedure is no other than the substitution of an anæsthetic, say carbonic acid gas, for the ordinary atmosphere. As this gas is wholly irrespirable, animals immersed in it become at once insensible, so as to permit the butcher's functions to be discharged without the infliction of a pang. I purposely visited the slaughtering-houses at Islington, and tried to talk over the functionaries there. You will have a deal of trouble, said one honest fellow, before you are able to work any change. The easiest way, observed Mr. Grimaldi, the head butcher, to kill an ox is to knock him on the head. He does not feel it. I can hardly admit that, Mr. Grimaldi, I rejoined. And farther, the pole-axe, were it even painless, is not resorted to in the instance of lambs, sheep, swine, calves, and fowl. In fact, the rich and well-to-do are in complicity in respect of the cruelties incident to the butcher's calling. They are the great meat-consumers, and, if they would, could at once put down killing practices, whose barbarous severity leaves all that has been alleged of vivisection quite in the shade. Surely no torture, no avoidable infliction, whether brief or protracted, ought to be tolerated towards creatures which, by their warm affections, their grace and beauty, make appeals to the heart and understanding, only less impressive than do similar qualities in ourselves. Butchers should be constrained to the adoption of painless modes of slaughter. Animals ought not to be put to death in towns but in the country, and that by persons who had nothing to do with the sale of their flesh, with all possible cleanliness, decency, and despatch. It is repulsive to see kennels reeking with gore, the soil strewn with convulsed frames and vitals yet warm and quivering. It racks the heart to listen to the plaints of God's sentient creatures undergoing inflictions cruel as they are superfluous. Though bereft of articulate utterance, still by signs and tokens which no one can affect to misinterpret, they give expression to their suffering. The moral sense is outraged, purity is violated, and the public health is endangered. And yet, man by nature is not necessarily savage or vindictive. Would we approve our affinity with a most divine Creator, let us do so by a greater compassionateness to the beings, placed for a time at our disposal, beings which, in their God given endowments, approach us more nearly than as yet, alas, we do Him.

CASE OF CONCEALED ACCIDENTAL HÆMORRHAGE OCCURRING IN THE EIGHTH MONTH OF PREGNANCY.

By GEORGE EDWARD CARRE, M.B.T.C.D.

Mrs. H., the wife of a comfortable farmer, pregnant of her fifth child, was disturbed about half-past twelve o'clock on the morning of the 19th of January by one of her children who was threatened with croup. She got up, gave him some medicine, and returned to bed, feeling quite well.

Very shortly after this she felt pain in her bowels, and got up to the night-chair, while there she became faint, and had to call to her husband to get her some water; in a few minutes she got better, and returned to bed.

The pain and faintness came on again in half an hour—the pain being now constant; she was very restless, and could not lie quiet for any length of time; faintness followed by sickness of stomach coming on every time she moved; she continued in this state until one P.M., when I was sent for.

I found her in bed with her head and shoulders raised; her face pale; lips blanched; feet and legs cold; pulse 86, but very feeble; complaining very much of weakness, sickness of stomach, and a constant gnawing pain like that of labour all over the abdomen, and shooting down her thighs; the weakness and sickness of stomach she attributed to some weight pressing on her stomach, and pushing it up towards her heart, and was most urgent that something should be given to relieve the pain and weight.

There was some tenderness over the stomach; none whatever over the uterine tumour, nor did it feel larger or more tense than is usual in the eighth month.

I found the os uteri very high up, quite small and closed; the fœtal head could with difficulty (owing to the womb being so high up) be felt through the cervix; there was no clot lying between the cervix and membranes, nor was there the slightest symptom of labour having set in, though she was most positive that the pain (though constant) was that of labour. She now became very faint, and complained so much of pain in her abdomen that I gave her thirty drops of tinct. opii in some whiskey; had hot jars applied to her feet; a mustard poultice to her stomach; after some little time she rallied. I ordered her a tablespoonful of brandy every half hour, and small pieces of ice to be placed in her mouth; nothing seemed to relieve her until about half-past two o'clock P.M. (more than twelve hours from the time that the pain and faintness commenced), when, while turning in bed, there was a great gush from the vagina; she at once called out, the weight is off my stomach, I am a great deal better. On examining, we found the bed saturated with blood. I at once made an examination, and found the os very slightly dilated, so that I could get the point of my index finger in; the membranes were not at all tense, and the head could easily be felt; while I was examining there was another gush of blood. I now ruptured the membranes, and let off a very large quantity of liquor amnii, not in the slightest degree tinged with blood; the hæmorrhage ceased at once; I gave her some brandy, which now remained on her stomach. Her pulse was very weak, though she said she felt stronger, and could turn without faintness coming on; regular labour pains set in, and at half-past three o'clock she was delivered of a still-born child.

On placing my hand over the uterus I was at once struck by its large size, and thought there was another child in utero, but on making steady pressure for a minute or two, the placenta came away, followed by three or four clots of blood, two of them as large as the placenta; she became very weak, but after I had given her some brandy, and applied the bandage, she rallied; her pulse was now so weak I could not feel it at all in the right arm, very indistinctly in the left.

There was some slight draining, which was stopped by infusion of ergot.

Having given strict orders that she should be kept perfectly quiet, and get a dessert spoonful of brandy every half-hour, I left.

Ten o'clock P.M.—She feels much better; has had no return of the faintness; pulse stronger; passed catheter, and turned her on right side; to get a dessert spoonful of brandy every second hour.

January 20.—Had two or three hours refreshing sleep during the night, and feels much better; complains much of pain in her head, and noise in her ears; pulse 100, very weak; she passed water shortly before I saw her, and did not get weak when the nurse turned her; to get a dessert spoonful of brandy every three hours; fifteen drops of spt. ammon. aromatic three times a-day; room to be kept dark and perfectly quiet.

21st.—Going on very well; continue brandy; vinegar and water to breasts; enema to be given early to-morrow morning.

22nd.—Bowels moved; pulse 86; colour returning to lips and cheeks; to get brandy and chicken-broth.

26th.—Still improving; appetite good. She made a steady recovery from this, and was able to sit up on the twelfth day for a short time.

I think the above case is interesting for several reasons—*firstly*, the separation of the placenta without any strain or over-exertion; *secondly*, the length of time that elapsed between the commencement of pain and faintness and the appearance of blood externally; and, *lastly*, the relief which the poor woman felt as soon as the blood flowed externally, thus relieving her from the feeling of weight and pressure which were so distressing to her, and which were no doubt caused by the blood's accumulating between the uterus and decidua, becoming as it were encysted.

A CASE OF CHOLERAIC DIARRHŒA, WHICH HAD RESISTED OTHER TREATMENT, CHECKED BY THE APPLICATION OF CHAPMAN'S ICE-BAG.

By H. FITZGIBBON, M.B., M.Ch.

THE following case of diarrhœa occurred with some others in the early part of January last, on board the West Indian steamship "St. Thomas," at New Orleans. It seems to me interesting, as supporting Dr. Chapman's statement, that cases of diarrhœa which resist the usual treatment, and even threaten to terminate fatally, as cholera, may be subdued by the application of an ice-bag along the spine.

There had been no diarrhœa or cholera up to the time of the ship's arrival at New Orleans; but there, owing to the use of Mississippi water by the crew for cooking and drinking purposes, eight of the men were attacked with severe diarrhœa. They all recovered under ordinary treatment, by astringents, opium, &c., except the chief cook, George Alphonso St. Cire. This man came to me on the morning of the 7th of January, stating that he had been purged during the previous night thirteen or fourteen times, he complained of great weakness and a sensation of dizziness. His tongue was clean, his pulse 75 in the minute, but very weak. I gave him three grains of acetate of lead, and half a grain of opium every fourth hour during the day, also a little brandy. The diarrhœa was checked under this treatment from about two P.M. until after he turned in at eight P.M.; he, however, had a return of it shortly after he went to bed, which continued until the following evening, when I gave him a dose of castor-oil, and the following mixture:—℞ decocti hematoxyli ad. ℥viii.; pulv. cretæ comp. gr.120; tr. catechu ℥iii.; tr. opii ℥i.; ℿ sumat ℥i. 3tiis. horis.

The diarrhœa was mitigated while he was on this treatment, but he continued more or less to complain of weakness, faintness, and disinclination for food, in fact he would eat nothing but rice, and but very little of that.

On the 20th of January he gave up attempting to do his duty, which, up to this, he had persisted in. I now found him purging every half-hour, the discharges watery, dark-coloured, and extremely fœtid; his pulse 90, and very weak. He complained much of dizziness, sickness, and weakness; he also complained of cramps in his legs, and abdominal gripings. There was no tympanitis nor pain upon pressure, but some borborgyrm over the ascending colon. I now gave him a large enema of warm water, which was immediately discharged; I then got him again into bed, had his feet rolled up in warm blankets, and applied Chapman's large ice-bag, filled with pounded ice, along the whole length of the spine, and retained it in position for twenty minutes, this was at 8 P.M. There was no return of the purging between this and 12 P.M., when I again applied the ice in the same manner. Next morning when I went to see him I found him sitting up, much pleased at having had an uninterrupted night's rest, he, however, complained yet of weakness and lightness in the head, but had no return of the purging whatever. There was no recurrence of it after this, and his appetite and strength improved, so that in three days he said he was quite well, but a little weak; his bowels, however, had not been moved at all, so that I gave him some castor-oil, after which they acted naturally.

That astringents or opium would not stop the diarrhœa in this case I am convinced, and that it was checked either by the ice-bag or the warm water enema, or both combined, I am certain, but I am inclined to give all the credit to the ice, as I do not think it could have been dependent upon any irritating matter actually in the intestines, as anything of that kind would probably have been removed by the castor-oil administered on the 9th inst., after which he never used any water except that condensed from the ship's boilers, which must have been perfectly pure.

Hospital Reports.

THE LONDON HOSPITAL.

CASE OF DOUBLE HYDROCELE, CURED BY INJECTION.

Under the care of T. B. CURLING, F.R.S.

(Reported by Mr. VIALLS).

WM. P., æt. 64, was admitted into the London Hospital, December 3rd, 1867, suffering from a double vaginal hydrocele, the right one being considerably larger than the left. The right one was transparent, showing the testicle at its posterior and upper part. The left was perfectly opaque, and had existed for eight years. The larger one had existed only two months.

December 11th.—Mr. Curling, after drawing off the fluid by means of a trochar, injected both sacs with a strong solution of iodine, leaving about ℥ii. in each sac. The fluid drawn off from the larger and recent hydrocele was transparent, of a straw colour, and measured about twelve ounces; that from the smaller one measured about six ounces, was thick and opaque, and had floating in it a large quantity of cholesterine.

After the operation the patient walked to his ward, having suffered very little from the injections.

12th.—The scrotum is supported by a crutch-pad; parts very tender but not much swollen; does not feel ill; pulse 96; temperature normal.

13th.—Both testicles tender, the left a little swollen.

14th.—Complains of pain on both sides of scrotum, and slightly feverish.

16th.—Less pain about the parts, but a little effusion in each sac.

20th.—Gradually improving; has very little pain.

24th.—Feels quite well, but has still a little effusion in each sac; is allowed to get up.

31st.—The effusion has not quite disappeared; tinct. iodinii to be painted upon the scrotum every other day.

January 3rd.—To continue treatment.

8th.—The right sac is empty, but the left still contains some fluid.

10th.—Discharged; to wear a suspender. The right side is quite cured, but the left still swollen and thick.

In the course of some clinical remarks upon this case Mr. Curling said that he had brought it under the special notice of his pupils, not only in order to illustrate the treatment of double hydrocele, but because it afforded them the opportunity of seeing the effects of treatment by iodine injections in two stages of the disease—in recent and in old hydrocele. The hydrocele on the right side was recent (of only two months' standing) and easily recognised by its transparency; while the hydrocele on the left side, though smaller than the other, was old (of eight years' standing), and perfectly opaque, owing to the sac being thickened and the fluid turbid. This hydrocele contained, as it often does in old hydrocele of persons advanced in life, a large quantity of cholesterine.

The opinion formerly was pretty general that in double hydrocele injection should not be performed on both sides at the same time, as the effects of the double operation might prove very severe, and that injection on one side has been known to cure both, by the extension of the inflammation from one sac to the other. These objections might hold good formerly when very irritating fluids were injected, and active inflammation induced, but Mr. Curling had never known the injection of one sac with iodine cure double hydrocele, and the effects of iodine injections are so mild, that no objection can exist to both hydroceles being operated on at the same time. In late years he had frequently injected both sacs at the same time, and had cured double hydrocele without more irritation and trouble than in the single operation.

In the case under consideration, injections caused less pain than usual. The recent hydrocele on the right side was readily cured, the fluid consequent on the injection having quite disappeared in three weeks. In the old hydrocele on

the left side the progress of the cure, as was to be expected, was not so rapid. The thickened sac still contained fluid when the patient was discharged, though the swelling was steadily diminishing, and there was every prospect of a satisfactory cure.

ST. MARY'S HOSPITAL.

CASES OF MELANCHOLIA.

Under the care of Dr. BROADBENT,

SENIOR ASSISTANT-PHYSICIAN TO THE HOSPITAL.

LOUISA H——, æt. 52, first came under observation on Feb. 1st, 1866. She had enjoyed good health, except that in the previous winter she had for a short time suffered from symptoms similar to those now complained of. She had had several children, and the catamenia had ceased eight years before.

For some time nervousness had been gradually coming on, and now she was constantly oppressed by great fear. She often trembled with terror, and was apprehensive of sudden death. She could not sleep, and would wander about the house at night, being at times, as stated by her daughter, not only restless, but excited, and even violent. She complained of constant pain all down the spine, in the hips, and at the back of the head. No appetite; bowels confined; tongue furred.

Her manner was absent, her expression rather sullen. She answered questions clearly, but spoke little, leaving her daughter, who accompanied her, to describe her condition. Her face was flushed; there was considerable redness about alæ nasi, and thick acné on chin.

The bowels were relieved by blue-pill and colocynth, and she had in succession mist. quinæ, ammonia, and valerian, and strychnine with iron. Opium was also given at night, but without inducing sleep.

On Feb. 22nd, as she was no better, morphia was prescribed, and continued in gradually increasing doses for three weeks, the daily amount taken during the last week being three grains. The pil. hydrarg. c. colocynth was taken when the bowels became confined; and

On March 8th bromide of potassium was given in doses of twenty grains three times a-day, with spirit of ammonia in infusion of calumba.

After the 15th the morphia was dropped, as it failed to induce sleep; and

On the 22nd the dose of bromide was increased to forty grains three times a-day.

29th.—Had been better for two or three days, attributed to her having been out with friends.

April 5.—Decidedly better; more herself, but still very nervous, and has pain in head and back; face flushed.

The improvement continued till the 26th, when, after being without medicine for a week, the symptoms returned.

It was resumed, and for a few days she was better again; but

On May 3rd was almost as bad as ever. She was, further, getting pale and thin, refused to eat, saying everything was tasteless; her hand also shook. The bromide discontinued. Tinct. valerian and tinct. hyoscy. ordered three times a-day in infusion of calumba. A pill of morphia and conium, to be taken at night, was vomited, and not again tried.

7th.—Had rested better, but was very low-spirited, and had been violent.

14th.—Better; and she was now lost sight of for a time at the hospital, but was met in the street quite herself.

July 26.—Again applied at the hospital as ill as ever; sleepless, nervous, often in a state of absolute terror. Pain across the top of the head; much pain between the shoulders; bowels confined; tongue large, moist, slightly furred. Less acné than when previously seen.

She was ordered to take small doses of blue pill, with taraxacum and colocynth morning and evening. Citrate of potash 30 grs., with spirit of ammonia and infusion of columba, three times a day. A hot-water bag to be applied to the cervical spine in the evening.

Aug. 2.—Worse than ever; very violent at times; head very hot; no sleep. To continue the pills and take bromide of potassium in doses of 30 grains, three times a day.

Aug. 20.—Better at times; still much in the same state; bowels confined; no appetite. Thinks the medicine does her good.

30th.—Better for a week after the last visit—then without medicine for a few days and worse again. The acné very bad. Dose of bromide increased to 40 grs.

Sept. 20.—Quite herself again, but all her limbs weak. In the interval she had had a slight transient attack of diarrhœa, and a profuse vaginal discharge of bright yellow colour, tinged with blood, had come on, and persisted in spite of astringent injections. The bromide of potassium to be taken at night only; ol. morrhua, ʒii. *ter die.* She continued to attend at the hospital till Dec. 10, her spirits good, and her strength returning. At first she could not do without the bromide, but later she took a dose only occasionally when restless after going to bed. She lost altogether the peculiar expression of countenance which had been noted, and was quite cheerful.

Feb. 14, 1867.—Became an out-patient a third time. All the old symptoms back again. At once ordered bromide of potassium, 30 grs. three times a day, and cod liver oil with port wine.

28th.—Sleeping better.

March 11.—No agitation; very weak.

21st.—Bromide discontinued. Mist. quinæ given. Ceased to attend.

April 25.—Cheerful and comfortable.

Aug. 22.—Return of all the symptoms. Treated in the absence of Dr. Broadbent, from town, by aperients and tonics. No better.

Sept. 2.—The patient thinner than when last seen, and less flushed. Pot. bromid. gr. xxx. in infus. columba; ol morrhua, vini. ferri. aa. ʒii.

Sept. 5.—Said to be about the same; expression better.

12th.—Not better. Acné on face worse; spots on chest. Pot. bromid. gr. L., at night only. Oil continued. Calomel and colocynth pill to relieve constipation.

19th.—Sleeps after the mixture; cannot take the oil; the vinum ferri given alone; complains that she has lost the sense of taste.

October 10.—Better and worse since last date; has at times seemed quite well; sleeps well at night; agitated in the day; no taste; bowels much constipated; 1 pil aloes; c sapone gr. x. quotidie.

17th.—Similar report; the mixture to be taken morning as well as evening.

31st.—Better.

November 7th.—Decidedly better; tongue furred in the morning; taste improved; feels when the fauces are touched and retching is induced.

She attended the hospital for the last time on November 21, having in the meantime taken the bromide twice a-day, the vinum ferri and the pills, with an occasional dose of castor-oil, found necessary on account of the great tendency to constipation. The note on this date is "less agitation; more rest; tongue and mucous membrane of mouth sore."

On the 16th December she committed suicide by throwing herself headlong out of a window, fracturing her skull. She was taken to another hospital. The brain was injured; no record of the condition of the abdominal viscera was made.

Case 2.—Louisa C——, æt. 50, married, four children, previously in good health and remarkable for cheerfulness, good flow of spirits and energy, had a slight attack of hemiplegia on the right-side 19 months before she came under the care of Dr. Broadbent. Two days before this attack she had "face-ache" which got well. Then, while ironing the hand suddenly dropped; she did not fall or lose consciousness, and the leg was not at all affected. She was confused for the remainder of the evening, but next morning

was quite clear; she lost her spirits and energy at once; became quite apathetic, and though the arm gradually recovered power she remained in this condition.

The hospital paper giving the date of her first attendance and the treatment first adopted is missing. Her condition on the 22nd July, 1867, is noted as follows:—Spirits very low, agitated, cannot rest in the house, scarcely any rest at night, wakes up in alarm and agitation; countenance expressive of extreme anxiety and distress; bowels only open by means of medicine.

July 29.—Ordered strychnine gr. 1-30th; acid phosph. dil. ℥x. aq. ʒj. *t. d.*; aperient pills as required. This continued till August 29th, when valerian and ammonia were given. On September 9, bromide of potassium was prescribed in doses of 20 grs. three times a-day. Cod liver oil, ʒii.; Pil aloës, c. sapone after dinner.

30th.—Worse. The dose of bromide increased to 40 grs.

Oct. 10.—Worse; no sleep; wakes excited; no peace during the day; cannot sit even to meals; paces about the house; has fits of convulsive crying, one witnessed in the out-patient room; sight dim, memory bad. Quinæ, disulph. gr. v., three times a day. Bromide discontinued. Pills as before.

17th.—Worse than before. She had taken laudanum, first a teaspoonful without effect, then a tablespoonful, after which she was stupid all day, and had some rest at night. She was recommended to enter the hospital as in-patient, and did so, but remained for a few days only, and while there seemed worse rather than better.

In the course of clinical remarks on these cases, Dr. Broadbent pointed out that while the condition of the two patients was at first sight very similar, there were many important points of difference. While they were attending together, he had called attention to the facial expression, in the one sullen, in the other anxious and distressed. The first, when at her worst, seemed indifferent to the questions asked about her, answered only when they were addressed pointedly to her, and then, in a few words, complaining merely of the pains in her head and back, or sometimes of sleeplessness or alarm. Her irritability, agitation, and despondency were known through the account given by her daughter. The attention of the other was concentrated on her condition, and her low spirits and distress were painfully evident.

Dr. Broadbent was inclined to attribute the nervous depression in the first case to gastro-hepatic derangement, indicated by the foul tongue, constipated bowels, and local pains, and he observed that every degree of mental disturbance was met with accompanying disordered function of the different parts of the alimentary canal from temporary lowness of spirits, or irritability of temper, through habitual moroseness or despondency, or hypochondriasis to actual insanity, on which state this patient bordered. The headache, in its heat and character, was such as is often met with from dyspepsia and torpidity of the liver. He attempted, in the first instance, to treat her on this view of the case, but the urgency of the symptoms compelled him to endeavour to relieve or control them by direct action on the nervous system. In the second case the symptoms were clearly traceable to organic injury to the cerebral nervous centres, which gave rise also to the hemiplegia, and it did not seem probable that treatment would be of any great service. Hypodermic injections of morphia, with cod liver oil and tonics, would have given her the best chance, but in out-patient practice this treatment cannot be properly carried out, especially when, as in this instance, the patient lives at a distance (Hackney).

In the first case, bromide of potassium had the effect of inducing sleep, and calming, in some degree, the agitation when opium had failed, a result which Dr. Broadbent had seen in other cases. The repetition of the result, and the aggravation of the symptoms observed two or three times when the medicine was suspended, show that the amelioration was not a mere coincidence. It was to be observed, however, that the good effects were accompanied by great prostration of strength, and Dr. Broadbent had seen this sometimes in cases of epilepsy treated by large doses of this salt. The impairment and perversion of the sense of taste was an interesting fact, and was probably due to the bromide, but the soft palate and fauces, which it has been said are rendered insensible by it, retained their sensibility.

ST. GEORGE'S HOSPITAL.

A YEAR'S SURGICAL PRACTICE.

(Continued from page 266.)

Diseases of the Urinary Organs.—Seven cases of irritable bladder were admitted; all were adults. Pus and mucus were found in the urine, and in one a hollow sound detected a rough elevation on the right side of the bladder, but there was no bleeding. Alkalies and anodynes were at first administered; and subsequently, when the water became clearer, and there was less pain during micturition, iron and the mineral acids were substituted, with excellent results.

Five cases of retention of urine were admitted; they were relieved by a warm bath and opium. In one instance the retention was due to the impaction of a stone in the urethra. The urine was drawn off with a catheter; and subsequently lithotrity was performed.

Stone in the bladder presented nine examples; in four of these the lateral operation of lithotomy was performed, and in five lithotrity. One case of lithotomy terminated fatally from suppuration in the kidneys, and one of lithotrity from cystitis.

An interesting case of urethral fistula may be mentioned here, but the details of it have previously been related in our columns by Mr. Ring.

Forty-two cases of organic stricture of the urethra were admitted, fourteen of which were complicated with urinary abscess and fistula. Three died, one of pyæmia, one of suppuration in the kidneys and uræmic poisoning, and one of abscess in the prostate, which produced symptoms closely resembling those of cholera. (This was a most important case, for a detailed account of it see THE MEDICAL PRESS AND CIRCULAR, March 20, 1867, p. 272, as related by Dr. Ogle.) In three cases perinæal section was successfully performed. The remaining thirty-six cases were all treated by gradual dilation of the stricture by means of instruments. Nine cases of enlarged prostate were admitted, in which the disease had altered the normal condition of the urine; one died. By drawing off the water regularly, and in many instances by washing out the bladder with tepid water, these patients were much benefitted.

There were two cases of extravasation of urine in the year. One recovered, and one died. The fatal case was that of a man, aged 48, who had been an in-patient some years ago with some urinary affection, the nature of which the patient could not explain. He had since been in China, and, owing to a recurrence of the symptoms, returned home for medical advice. When admitted, there was considerable redness, swelling, and œdema of the scrotum, perinæum, and lower part of the abdomen. Incisions were made into the scrotum; but on the following day the swelling had increased, and the parts were very foul. The patient was, therefore, placed on the operating table, and the finger was introduced into the rectum, and the prostate found to be enormously enlarged. A bistoury was, therefore, plunged into it, but without effect. An incision was now made in the median line of the perinæum, and a fetid abscess opened. Some more incisions were made into the swollen tissues, and the man was sent to bed. He was in a very low condition, and never rallied, but died on the following morning. The kidneys were large, their secreting structure was diminished in quantity and infiltrated with pus; the calices and ureters were much dilated. The bladder was contracted, its muscular coat enormously hypertrophied, and its inner surface somewhat sacculated. The prostate gland was much enlarged

and indurated; on section, a large abscess was found in its substance with thick walls. There was also another abscess in front of the prostate which communicated with the rectum, and also with one of the incisions in the perinæum, but it did not open into the urethra. In the urethra was a false passage running for about three-quarters of an inch in the submucous tissue, but there was no appearance of any stricture.

Diseases of the Male Organs of Generation.—There were seven cases of primary syphilis occurred, sixteen of secondary; five of gonorrhœa, one complicated with purulent ophthalmia, and four with synovitis; three of phimosis and five of paraphimosis.

Twelve of hydrocele; in eleven of which the ordinary operation for the radical cure was successful. One case resisted repeated and strongly irritating injections, and it was found necessary to lay the tunica vaginalis freely open, and allow it to granulate from the bottom.

One case of hæmatocele was admitted. It was produced two days previously by a kick from a horse. Rest and the application of a cold lotion caused absorption of the effused blood in a week.

Fourteen cases of orchitis were admitted; of these eight were acute and six chronic. The former were frequently due to gonorrhœa, and were treated by rest, a tepid lotion, and the administration of antimony, with calomel and opium; the latter were in three instances due to syphilis, and in two of them there was a fungous protrusion of the testicle; in these instances the red precipitate powder was applied, and the same general treatment pursued as in the other cases, viz.—the administration of cod-liver oil, and syrup of the iodide of iron, or mercury, and the local application of the blue ointment.

Two cases of cancer of the penis were admitted in order that the disease might be removed.

Diseases of the Female Organs of Generation.—Seven cases of abscess of the breast occurred; four of these took place during lactation, and the remaining three originated without assignable cause.

Nine cases of tumour of the breast were admitted. Two of these were cases of sero-cystic disease, in which the disease was removed.

Seven were cases of scirrhus, and in five of these amputation of the breast was performed; in one the disease had been previously removed, and had returned in the cicatrix. Potassa fusa was applied to the wound after the removal of the growth. One case terminated fatally from granular kidneys and fatty heart.

Of the remaining three cases, one was discharged for readmission, and two were incurable; in one of these acetic acid was injected, and found ineffectual. Acetic acid was also injected into an enlarged axillary gland, with the effect of destroying it by suppuration; the mamma was affected with scirrhus, and was removed; the disease returned in the cicatrix, but not in the axilla.

Among diseases of the external organs of generation, we find four cases of abscess of the labium, one of fatty and one of fibro-cellular tumour, with one of epithelioma, all of which were removed; and one case of condylomata.

Six cases of primary syphilis, comprising Hunterian and soft chancres; six cases of gonorrhœa; and sixteen of secondary syphilis, were admitted during the year. One case of vesico-vaginal fistula was admitted, and cured by operation. One case of cancer of the uterus and one of fibrous tumour occurred, but they were discharged, being unfit for operation.

Three cases are classed as polypus of the uterus; in two instances the growth was removed by ligature, in the other the patient was discharged at her own request.

Three cases of ovarian cyst were admitted; two merely for paracentesis, and one with a view to operation. The patient, aged 28, gave the following history. After her confinement some seven years previously, the abdomen commenced swelling, it increased rapidly in size, and paracentesis was performed. This operation had been repeated twenty-six times; the intervals between each had gradually become shorter, latterly being only of a month's duration. The last tapping took place three weeks ago. The abdomen was uniformly enlarged, elastic, and fluctuating in every part, except on the left side, where there was a large firm mass. The os uteri was healthy, and pressed down almost to the outlet of the pelvis; the cervix was short; and the parts around were elastic. The patient had no pain, but felt a sensation of tension of the abdomen; she was considerably emaciated. Over the apex of the left lung there was tubular breathing, with dulness on percussion, and increased vocal resonance. There was no cough. The cyst was tapped, and twenty-seven pints of viscid fluid containing much albumen were drawn off. The mass on the left side of the abdomen could now be distinctly felt; it had firm well-marked edges, and was movable; it appeared to be adherent to another mass occupying the left lumbar and inguinal regions; a third mass was also found in the right iliac region. In three weeks the cyst had refilled; it was tapped, and thirty-two pints of fluid were drawn off. After the relations and connections of these cysts had been attentively considered, the case was deemed unfavourable for operation.

This concludes our abstract of the year's surgical practice at St. George's, condensed from the last volume of reports, and omitting cases which had been related in our columns during the year. On another occasion, we hope to furnish some statistics of the other hospitals.

CITY OF DUBLIN HOSPITAL.

REMOVAL OF AN ENORMOUS TUMOUR FROM THE NECK.

By Mr. CROLY.

We are indebted to Mr. Croly for having had an opportunity of being present at a most interesting operation which he performed on Wednesday, the 11th of March, in the spacious theatre of the hospital, which was filled with medical men and students.

The patient, a woman aged 46 years, presented a most extraordinary appearance, having a huge tumour hanging from the right Parotidean space and side of the neck. It was growing for a period of fourteen years; never caused her actual pain, but was most distressing in consequence of its great weight. It was eight inches in length, and twelve in circumference, oval in shape, and of firm consistence. The patient had been under Mr. Croly's observation for the last three years, however she could not make up her mind to submit to an operation for its removal, but was most anxious it should be done now, having lost a considerable amount of venous blood from the pendent part of the growth a short time before her admission into hospital, which alarmed and weakened her. Being very nervous, she was chloroformed in her bed, and then carried with the "poles and sheet" to the theatre.

The vessels of the neck at the right side having been compressed by an assistant, Mr. Croly commenced by making elliptical incisions through the integument on the tumour near its pedicle, and dissected up the skin flaps. He used the handle of the knife and his fingers alternately, and detached the large mass with rapidity. Several arterial branches of large size were tied with the fine hemp ligature, and the masseteric branch (unusually large) was secured by a large acupressure pin with loop of inelastic wire, according to the fourth method; very little blood was lost. The surface of the wound was sponged with cold water, and then with carbolic acid and oil; the edges of the integument were approximated and kept *in situ*, with American pins and twisted sutures. Carbolic acid ointment spread on lint was next applied, small compresses placed under the jaw, and retained by strips of adhesive plaster. The patient was then removed to her bed.

Mr. Croly made some practical remarks on this highly interesting case. He hoped the tumour, when examined microscopically, would be found to belong to the *benign* class.

He laid great stress on the value of *raising* pendulous tumours (by O'Ferrall's plan) for days previously to operation (which he did in this case with great advantage and comfort to the patient), so as to favour the return of the blood, and also to diminish the calibre of the vessels, thereby lessening the risk of severe and dangerous hæmorrhage during operation.

Mr. Croly also drew the attention of the Pupils to the great necessity of *saving a sufficient amount of integument* to cover the space left by the removal of large tumours.

We are happy to say that on inquiry before going to press, we heard that the patient has progressed most favourably since the operation.

Literature.

RESEARCHES IN OBSTETRICS.

The year before last Messrs A. & C. Black published an important volume,[1] from the pen of Dr. Matthews Duncan, devoted to sterility and the allied topics, which have, as is well-known, occupied for a long time the attention of that distinguished practitioner and teacher of midwifery. That volume comprised twelve papers by the author, that had previously appeared in the "Transactions of the Royal Society of Edinburgh," and in the *Edinburgh Medical Journal*. It included, moreover, an important contribution on "Fecundity and Fertility," by Professor Tait, and a large amount of statistical matter in the form of tables. Altogether, it immediately took its place as a most learned work on the subjects with which it dealt. Were we about to enter into any lengthened criticism of the work, we should feel it necessary to furnish further indications of its contents. As this, however, is not our immediate object, we shall specify only one or two of its more practical and interesting contributions, by way of encouraging practitioners to look into the volume for themselves.

Passing by, then, the chapters on Fertility and Fecundity, we come upon the subject of sterility, which is treated by the author in seven chapters, extending from p. 181 to p. 207. We venture to assert that these chapters comprise the most reliable facts in relation to this obscure subject, brought together in a manner to reflect credit on the compiler, and inspire confidence in his conclusions.

Another very practical section of this work is that devoted to childbed mortality. This is treated in relation to the number of the labour, the age of the women, and other circumstances by which it seems to be affected. The section on the duration of labour will be read with keen interest by those engaged in obstetric practice, and who are constantly asked to predict the day of parturition. Dr. Duncan says, the statistics contained in his volume "will always justify the physician in never giving a decided prognosis of the day of confinement," and a little further he confesses that they show, "that with the most certain knowledge of the termination of the last menstruation, or even of the date of a single coitus, no safe prediction can be made unless within limits so extended as to deprive it of much of its value." Yet even after this qualification, which we think most reasonable, Dr. Duncan adds that "there is no doubt it will always be desirable to know the most probable day of confinement, and this can generally be settled with some exactness." Some of Dr. Duncan's conclusions we will also add. He thinks the interval between conception and parturition, which he calls the real duration of pregnancy, has not yet been ascertained in any case. The average interval between insemination and parturition, which is very commonly called the duration of pregnancy, he puts at 275 days. That between the end of menstruation and parturition he calculates at 278 days. Finally, although he thinks the proofs of prolongation of real pregnancy deficient, he admits that there is evidence to establish the probability that it may be protracted three or four weeks, or even more, beyond its usual limits. Without pretending to have done justice to a book so full of laborious research, we now turn from it to a more recent work by the same author, and which may be looked upon almost as a companion volume to the one we have been considering.

1 Fecundity, Fertility, Sterility, and allied topics. By J. Matthews Duncan, A.M., M.D. Edinburgh: Adam & Charles Black. 1866.

Dr. Matthews Duncan's last work[1] has only been out a few weeks. It is devoted to the subjects which have so long been his favourite studies, and framed on the same plan as his former volume, comprising essays that have already been separably issued in periodical publications.

We shall proceed at once to name some of its principal contents—

Part I. is on the statics of pregnancy, and contains five chapters—viz., 1. The position of the uterus. 2. The natural position of the fœtus in utero in advanced pregnancy. 3. Intenibility of the theories of the position requiring muscular movements. 4. Position of the pregnant female. 5. On the mode of presentation of dead children in labour.

In Part II., the pelvis is studied with a view to obstetrics. We have here chapters on the sacrum, and its use in the development of the lateral expansion of the cavity; on the formation of ricketty pelves, including the author's well-known paper after Meyer of Zurich; on oblique-ovate pelvis, and on the pelvic articulations in parturition.

Part III. consists of nine chapters on various points in the physiology and pathology of pregnancy, and the puerperal state to which we shall presently return.

Part IV. includes various topics in natural and morbid parturition, and may be called contributions to the dynamics of labour.

In one of these eight chapters, we have an essay on the power of the uterus to resist a bursting pressure; in another, an account of the caput succedaneum, and in another, a paper on the production of inverted uterus.

Part V. is composed of three chapters:—1. On the retentive power of the abdomen. 2. On uterine metrology. 3. On vagina duplex and uterus simplex. We have thus given an outline of the contents of this handsomely got up volume which does credit to all concerned in bringing it out; for the publishers have done justice by the author, and had it printed and bound in the best style. The edges only wanted cutting to protect it from the ragged appearance we have imparted to our copy, and which always forms so favourable a nidus for dust.

We now return, as we promised, to the third part on physiology and pathology, and which to our notion is the heart of the book. The first chapter of this part treats of menstruation in early pregnancy. This is followed by a chapter on "Superfœtation," which starts with the theory that as menstruation is an indication that conception is possible, there is no valid reason why this should not hold good when the menses appear during early pregnancy. Dr. Duncan says the "only insurmountable anatomical obstacle is the insertion of the ovum over the os uteri internum, or simultaneously over the internal orifices of both Fallopian tubes;" he appeals to dissections to prove that the uterus "is not closed till some time about the third or fourth month," and he holds that "there is no reason to think superfœtation impossible till this takes place." Further, he calls in evidence instances of so-called twin births, in which one child has been black and the other white, as well as other cases, in which the size of twins has considerably differed. We are scarcely prepared to endorse the author's conclusions, which do not satisfactorily explain how it is that twins developed from a single ovum may differ as considerably in size as those in which two ova have been engaged from the commencement. Nor can we adopt size alone as a proof of age when we see the size of children, by the same parents, born at the full time vary so much.

Still our object here is not to open a controversy, but to point out that while so able an authority as Dr. Matthews Duncan holds the theory it cannot be properly said to be exploded.

Passing over the chapter on the site of the insertion of the ovum, we come upon a very important one on the internal surface of the uterus after delivery, which embraces the author's contribution to the *Medico-Chirurgical Review* of October 1853. He denounces as paradoxical the doctrine which is still very often taught by obstetricians, and appeals to dissection in support of his belief that after delivery the muscular fibres of the uterus are not laid bare, but are covered by a mucous membrane. That such is the case might very well be believed from analogy, but it is better to collect the results of actual anatomical examination. M. Robin has, to some extent, adopted our author's doctrine, as have several English writers, and we think it is likely to gain new adherents; but these writers do not go

1 Researches in Obstetrics. By J. Matthews Duncan, A.M., M.D. Edinburgh: A. and C. Black. 1868.

so far as Dr. Duncan. They seem still possessed of the notion that the entire uterine mucous membrane is deciduous, and that a new membrane is formed beneath it prior to delivery. The notion that the entire internal uterine surface is but a large wound at any time, is utterly repudiated by Dr. Duncan, as is also the idea deduced from it, that the lochial discharge is of a purulent nature. This brings us to the next chapter, in which the author cites the investigations of Wertheimer, founded upon eighteen carefully observed cases.

The sixth chapter of this part relates the history of the mucous membrane of the body of the uterus. The author's headlines to these pages will strike some of the most devout admirers of John Hunter with astonishment, and provoke in many of them a feeling of resentment. He actually uses the phrases "William Hunter's accuracy" and "John Hunter's errors," page after page, with a reiteration that is positively provoking to those who have long looked upon the great anatomist and surgeon with superstitious reverence, and relegated William to an obscure niche in the temple of fame. Modern physiology goes far toward re-establishing the views of William on this point, at the expense of the teachings of his more renowned brother, whose works have exercised an almost unbounded influence on his successors. Whether Dr. Matthews Duncan has proved the doubtful passages of William's work to be the interpolations of the editor, Matthew Baillie, is a question we can afford to leave to literary criticism. Certain it is that Baillie was the posthumous editor, and that some passages, in a style more or less different from the body of the work, do embody John's views, and in so doing are apparently at variance with other portions of the work. Whatever the relative merit of the two brothers, the fame of one has undoubtedly overshadowed that of the other, and is supported by so many other pillars, that the removal of this one could have no influence upon its stability; while that of his brother may be more firmly established by the rectification. Whether this were so or not could, however, have no influence on the justice of the case which demands honour where due, and we are quite willing that William should be, in the language of the day, rehabilitated even though the process be signalized by the paradoxical announcement "William Hunter's accuracy—John Hunter's errors."

Chapter 7, on the length of the cervix in advanced pregnancy, adopts the views commonly attributed to Stoltz, but enunciated before by Weitbrecht and supported in passages of De Graaf, Verheyen and Cazeau. This view is opposed to the notion of the cervix gradually diminishing in length with the progress of pregnancy, as commonly taught in the present day, and as was believed by Montgomery, Gooch, Desormeaux and others. Dr. Matthews Duncan has always taught that these views are erroneous, and the chapter is a fair review of the controversy. It strikes us, however, as one of the least interesting, and aptly illustrates the weak point of the book, that it appears too much of a *rechauffé* of articles published long ago. In some of the chapters the interest is such that this is forgotten. In this instance it has not been by the reviewer, but that after all may be his own fault.

In the next chapter are related some very interesting cases in which portions of the membranes or of placenta were retained for a considerable time, and which show that such imperfect delivery may or may not set up fetid discharges. When it does so it will attract attention, but inasmuch as such a symptom may occur from other circumstances the cases possess a twofold interest.

We may cite as a warning to the ignorant, reckless, and overweening specialists, who place all their hopes of success on the skill with which they can introduce the speculum, one incident in one of the cases.

Before Dr. Duncan saw it some one had come to that diagnosis which seems to be a sort of refuge in all cases of discharge—ulceration, and accordingly the patient had been subjected to the usual course of speculum and caustic.

We have no more wish than the author to decry a mode of treatment often found useful, but we may take the opportunity of protesting against what is a rapidly increasing abuse.

The 9th chapter concluding part III. is a brief one on imperfect development and hypertrophy of the decidua of which the author has met with one or two examples, but concerning which he has not much to tell us.

The woodcuts he gives, however, are very clear, as are the whole 40 with which the work is adorned.

We have far exceeded the limits allotted us by the editor for a notice of these two volumes on obstetrics, but we trust their importance and the difficulty of conveying in a few sentences an outline of such extensive researches, will be appreciated by the reader.

Dr. Matthews Duncan has done well to collect his contributions. They are in their present form the finished productions of a ripe scholar. Such laborious researches redeem the obstetric branch of our profession from the common taunt that its practitioners are too frequently engaged in personal squabbles to advance the science of medicine as much as they ought.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 1, 1868.

DECORATIONS OF HOSPITAL WALLS.

IT is not often that as medical journalists we are called upon to devote a paragraph to the Fine Arts, but there is just now in London an exhibition which claims peculiar attention from medical men. In the gallery of the Institute of Painters in Water-Colours, 53, Pall-Mall, there is a collection of sketches by Mr. ABSOLON which are intended, a week or two hence, to be transferred to the walls of Guy's Hospital. These ten large pictures are reproductions of that well-known artist's works, and their own merit as well as their destination will not fail to attract notice. It seems that like many other noble and generous minds, Mr. ABSOLON'S has been moved by the miserable appearance of the bare walls of most hospitals, and that he has been thereby stimulated to inaugurate a reformation by presenting these copies of his more celebrated works to Guy's. He calls the collection the "pleasures of memory," and long may he live to enjoy these pleasures, and feel that he has imparted to many a sick and sorrowing heart, the cheerfulness which seems to have its abode in his own, and to find so full an expression in his works.

There is something very depressing in the constant view of white-washed or painted walls—something which speaks too distinctly of the emptiness of life, and the painful struggle after the sublime and the beautiful. When the body is prostrate with sickness and pain, the ray of fancy that may serve to light the soul should not be quenched in the darkness of nothingness, but stimulated to its fullest exercise, that it may merge weariness into dreams of rest and peace. Such pictures as those which have called for these remarks may well contribute to the healing power of the other comforts of Guy's.

There is another thought which the subject has called up and may as well be expressed. There are many good people who, having spied out the nakedness of the land in many charitable institutions, have, with excellent intentions, but little judgment, filled up the blank spaces on the walls with placards containing texts of Scripture or other religious quotations. Now, there is nothing beautiful in an ordinary printed placard—however striking it may be. It is more appropriate to the advertising Sandwich than to

the sick-room, and in itself almost challenges the eye as a vulgar intrusion. But this is not all our complaint. Our estimable religious friends have been guilty of a much grosser want of taste and refinement, if not even of Christian charity. They have hung up in the wards of the charities they patronized texts which they had no right thus to force upon the constant attention of their sick brothers and sisters. It will not be denied, we think, by any one who reflects for a moment, that no frail mortal is justified in assuming that every other is only "a vessel of wrath." By what authority, then, do our good friends address the sick and suffering as all wicked—as all "given over to evil"—as "led captive by the devil at his will"—as the "children of the evil one"? Let them show their authority for this, and they may be excused for constantly parading the warning to "flee from the wrath to come"—the call to "resist the devil"—the almost unnecessary reminder that "the way of transgressors is hard": but even then, we think, it will be admitted that there is no occasion for the comminatory passages which form so large a part of these repertories. It is no extenuation to say these are all to be found in Scripture. So are others with which patients might well retort upon their patrons—such as "judge not that ye be not judged," and that significant text about the beam and the moat in the eye.

No doubt there has never been any unkindness intended. We are ready to give the managers who suffer these placards as well as those who present them, credit for the best intentions; but we cannot be blind to the inappropriateness of many that we see. We will give an example from recent personal experience.

At a hospital where we lately did the duty of one of the physicians, there were suspended in the view of all our patients these texts in large characters—"The wicked shall be turned into hell," "All ye like sheep have gone astray,' "He that believeth not shall be damned." On remonstrating against this we were informed that they were the gift of a clergyman who was on the Committee of the hospital, and that their removal would certainly be disapproved.

Finding they had been there for a long time, and observing that they were very dirty, we substituted for them similar placards, with the texts, "God is love," "Like as a father pitieth his children, so the Lord pitieth them that fear Him," "Believe on the Lord Jesus Christ and thou shalt be saved."

It may be a mere sentiment, but we cannot get over the feeling that the latter are far more appropriate to the sick-room than the former, and if we are to have Scripture thus paraded before the eyes of our patients, let us have courage to express our opinion that the weary and worn frame of sickness does not imply hardness of heart, or call for the stimulus of denunciation. Rather we should say would it dispose to a deeper appreciation of the Infinite Love—a calm reliance on the promise of the All Merciful. At any rate, we may be sure that well-grounded hope will do much to second our own ministrations; while the excitement produced in many timid natures by threats of awful terrors, may go far to nullify our treatment, as well as to frustrate the intentions of those whose judgment has been blinded by their zeal.

ABYSSINIA.

The third and fourth sections of Mr. Markham's communications, which were read before a meeting of the Royal Geographical Society, and the former part of which we noticed in a previous number, relate to the passes between Howakel Bay and Senafé. The first is the Teconda Pass, up which the advanced brigade was led in the beginning of December. Koomayloo at its entrance is 433 feet above the level of the sea. The road winds a distance of eight miles through gneiss mountains, which rise perpendicularly on either side up the bed of the Nebhaguddy to Lower Sooroo. There are here evident traces of volcanic action. One which cannot be overlooked is a vertical crack in one of the cliffs about five feet wide, filled with a black volcanic rock, which at a distance might be mistaken for a broad black mark, drawn for some purpose or other on the face of the rock. At Middle Sooroo the road turns suddenly to the right, and enters a pass not more than from 50 feet to 100 feet across, while the mountains on each side rise to a height of 1000 feet. Here for a distance of 250 yards were immense boulders of gneiss heaped together in great confusion, which have been removed. Twelve miles from Koomayloo is Upper Sooroo, which is 2520 feet above the level of the sea, where the pass opens again. From this place to Rara Guddy there is an excellent natural road, which, with very little labour, was made passable for wheeled traffic; and eight miles further on is Senafé, situate on the table-land, at an elevation of 7464 feet above the level of the sea. Though the country is wild, and but few signs of civilization are found, yet the difficulty of progress is by no means so great as might have been expected. Mr. Markham observes:—

"I have been in the Alps and Pyrenees, have walked or ridden up nearly every pass in the Western Ghauts of India, from Bombay to Cape Comorin, and I confidently affirm that in none of these ranges is there any natural opening which is so easily accessible as that from Komayli to the highland of Abyssinia. One peculiar feature in these Abyssinian mountains is that the passes leading through them have easier gradients and are altogether more readily surmounted than those of almost any other mountainous range in the world."

It was found that at Upper Sooroo there is plenty of excellent water supplied by a stream which is four miles in length from its source to its disappearance at Lower Sooroo. Further on, a plain was passed where there were guinea-fowl, candelabra trees and aloes. Here the scenery becomes very striking and beautiful, while the cliffs, as the party passed on, seemed to rise higher and higher, with the peaks of the mountains towering up into the sky behind them. The vegetation too was richer and more varied. Near the schistose and quartz rocks there were figs, peepul, banyan, sycamore, tamaux, tamarind, jubub, and solanum, trees and plants; and at Rara Guddy, where again there is a good supply of running water, in addition to these there were the mimosæ, and evergreen bush with sweetly-scented flowers (*myrsine Africana*), lobelia, wild thyme and the graceful clematis climbing over the trees. Though as a set off "in some places there was a perfect plague of locusts, which rose from the ground in myraids as the party approached, their innumerable wings making a loud crackling noise." Monkeys, also, were numerous in some parts, and flocks of vultures were attracted by the carcases of the mules.

Some considerable apprehension has very naturally been felt that the heavy rains of the highlands would swell into torrents destructive of the roads which pass through the gorges of the mountains, and thus interrupt the communication between the sea and Senafé, the base of operations

on the table land. Mr. MARKHAM'S observations, however, lead to the hope that these fears are to a great extent groundless. He noticed that the area of drainage is comparatively small, and mainly carried off by a gorge which leads to the Ragolay river, so that if a flood occurs it must be from an unusually heavy rain, which he considers is the exception and not the rule. Besides which he saw in the channel trees growing, which by any large swell and fierce rush of water must have been uprooted and carried away, while he found no marks left on the rocks or elsewhere of a subsiding flood—from all which it seems presumptive that the necessary intercourse between the sea and Senafé may not be materially obstructed.

The camp is situated on a plain, and is nearly surrounded by sand-stone hills and rocks. At no great distance, at the foot of a large mass of sand-stone rocks, stands the village of Senafé, formed of about a dozen houses, very roughly built, containing a population of 240, all Mahomedans, a black race with woolly hair. Further on in the valley are 15 other villages, making the population altogether about 5000. These latter villages are all Christian. Parts of the valley have excellent pasture, while others are ploughed and yield crops of barley. The flora is various, among which are found dog-roses, violets, and cowslips; and on the slopes of the hills, trees and shrubs of a warmer climate. Many of the views from the different localities are exceedingly striking and magnificent. In some parts of the cliffs there are large boulders and deep caverns, which form the lurking places of panthers and hyænas, but as yet no lion, or other wild beast, or snake has made its appearance. All that is known of the climate at present, after so short a time for observation, is that in the dry season the nights are cold, and the days cloudless and warm, while in May the rains set in, and continue more or less heavy till September, submerging the pastures, and rushing in torrents down the water-courses.

From later accounts we learn that the British advanced guard has reached Antola, which is about half-way between the sea-coast and Magdala, and the other half must be traversed before any direct effort can be made for the release of the captives. In a civilized community where facilities of transport already exist, 200 miles would present but a slight obstacle, which ten days, or at most a fortnight, would suffice to overcome. But in a country of which comparatively little is known—wild and mountainous as well—through which, as experience has already taught us, the roads have to be made before the forces can advance, where almost all supplies of food for man and beast must be brought the whole distance from the sea, and where other impediments will undoubtedly be met with—it is impossible to tell how long time may elapse before reaching the spot where the object of the expedition is to be achieved. Sir ROBERT NAPIER is undoubtedly a man of energy, and as a Commander no better could have been chosen; but even he cannot do impossibilities—even he must yield to necessity. If he succeeds in reaching the fortress of King THEODORE before the rainy season commences, the end may in all probability be readily attained. But then there is the march back, and when the rains once begin, no one can foretell the perils and obstructions which the retreating army may encounter before gaining the sea-board again. Who may have been the cause of the affront to the Abyssinian monarch, which has led to all that has happened, and may still happen before the affair is ended, we presume not to ask; but his Majesty will have ample revenge upon us in simply withholding the prisoners, and compelling us to spend untold millions for the sole purpose of wresting them from his grasp.

Notes on Current Topics.

The Public Health.

THE Registrar-General records the following particulars. There were 4743 births and 2934 deaths in London, and 13 other large towns of the United Kingdom, the annual rate of mortality being 24 per 1000 persons living in the week ending March 21st.

In London, 2299 births were registered in the week; the average number is 2218 corrected for increase of population; and the deaths in London were 1298, which is 301 less than the estimated number for that week. The annual death-rate was 23 per 1000 in West London, 22 per 1000 in Central and East London, and 21 per 1000 in North and South London.

"The annual rate of mortality last week was 22 per 1000 in the whole of London, 28 in Edinburgh, and 24 in Dublin; 19 in Bristol, 23 in Birmingham, 25 in Liverpool, 30 in Manchester, 31 in Salford, 21 in Sheffield, 25 in Leeds, 27 in Hull, 27 in Newcastle-upon-Tyne, and 31 in Glasgow.

"The deaths from zymotic diseases were 234, the corrected average number being 324. Twenty deaths from small-pox, 31 from measles, 20 from scarlatina, 9 from diphtheria, 46 from whooping-cough, 37 from fever, and 19 from diarrhœa were registered.

"One hundred and eighty-seven deaths occurred from phthisis, 111 from bronchitis, 79 from pneumonia, and 64 from diseases of the heart."

The Royal College of Surgeons of England.

ALREADY some little flutter has been made by our contemporaries over the probable candidates at the next election of Councillors. It is too early to say much. Some of the so-called candidates will probably decline to be nominated, and others may appear. Mr. Cooper has publicly announced his candidature on the ground of seniority and of liberal views. Mr. Erasmus Wilson has also declared himself ready to contest the election, and he will doubtless be one of the favourites. His high scientific standing, and long devotion to one branch of professional work, will not fail to enlist many in his favour. It should be known, too, that he is, *in one sense*, the senior Fellow *by examination*. In explanation of this term, we remind the reader that before the grade of Fellow was made, certain members were admitted to a voluntary examination as to their fitness for teaching. Mr. Wilson at once presented himself, and passed this examination. When the new charter was obtained he naturally appeared amongst the first list of fellows. Mr. Wilson comes forward, pledged to support the rights of fellows and members. He is in favour of voting by proxy, would separate the offices of councillor and examiner, would make the results of the discussions of the Council public, and give the fellows the opportunity of discussing matters relating to the general welfare of the College.

We expect that Mr. Luther Holden will again come forward, and the friends of Mr. Simon are anxious to see him on the Council.

There will, therefore, be no lack of liberal candidates, and fellows would do well not to make too hasty promises, but to see who will bid highest.

Lambeth Workhouse—the New Master.

THE recent appointment of a master to the Lambeth Workhouse was brought before the House of Commons on Friday week. Sir M. Beach, in his first speech since his appointment as Secretary of the Poor-law Board, explained the circumstances under which Mr. Catch had been requested to resign his former position, and maintained that he had been guilty of nothing to hinder his employment in a similar capacity. The Board had explained the facts of Mr. Catch's career to the Guardians, who had unanimously confirmed his election. The papers being now produced, further discussion may be expected.

The Wigan Workhouse Case.

OUR readers will not have forgotten the shocking event in the Wigan Workhouse last January, when a poor little infant was scalded to death by an imbecile nurse. This nurse was last week tried at the Liverpool Assizes on a charge for manslaughter, and of course acquitted. Why punish an idiot for doing badly what she ought not to have been set to do at all? We were delighted to read in the daily papers that the judge severely censured the authorities of the Workhouse for putting such responsibilities upon poor creatures like the prisoner. His Lordship said, that if these authorities had been placed in the prisoner's position, they would have had great difficulty in defending their conduct. This remark conveys a very useful hint. Why should they not have changed places with the unfortunate idiot? Is there no way of bringing home, in this practical way, to all officials a proper sense of their responsibilities?

Workhouse Infirmaries Association.

A DEPUTATION appointed by this association was received on Saturday, the 21st ult., by the Earl of Devon, President of the Poor-law Board. Several noble Lords, various Members of Parliament, and other gentlemen, were present on the occasion. The Archbishop of York, who was at the head of the deputation, first addressed the President. After referring to the evils of the present system of workhouse management, which he detailed at some length, and corroborated by quotations from the report of Mr. R. B. Cane, Poor-law Inspector, his Grace expressed a hope that it would not be thought the deputation had come to his Lordship in "any spirit of dictation." Their sole object was to express a wish that the Poor-law Board might be entrusted with larger powers, that the requirements of infirmary establishments might be more clearly indicated, and authority given to the Board to inforce them; that an auxiliary corps of medical inspectors might be appointed to examine and report on the nursing, medical attendance, sanitary arrangements, diets, medicines, &c., in the workhouse infirmaries; and that dispensaries might be established for the out-door sick.

Several others addressed his lordship in support of the objects which the deputation sought to attain, and the Earl of Devon replied, assuring them of the satisfaction with which he had listened to the views they had expressed on the subject before them. He considered the Board was much indebted to them for their influence in promoting the important changes made last session in the administration of the Poor-law in the metropolitan district, though he questioned whether the House of Commons would give the Board the powers which the deputation seem disposed to ask for, and whether the metropolitan and country districts were so much alike that the same regulations would apply equally. He stated that the Board proposed certain alterations in the reports to be sent in by the Inspectors, and that the medical officers would be required to keep a separate book for detailed information to be laid before the Guardians, on points connected with the infirmaries and the sick. He acknowledged that great deficiencies existed, but believed that these and similar regulations would give the Board more regular and effectual supervision. As to dispensaries, he said, though the metropoliton ones worked well, he was not prepared to say whether it would be proper to establish them in country districts. There was, however, nothing to prevent the Guardians from establishing them in connection with the workhouses, and the Board would have every disposition to aid them in that object. After presenting their thanks to the noble Earl, the deputation withdrew.

The Rating of Charities.

SOMETIMES the Legislature, unwittingly, destroys a just and long-recognised policy, by decisions relating to other interests which apparently have no connection with it. Three hundred years ago, when the Poor-law was first enacted, it was an admitted principle, which has ever since been acted on, that all charitable institutions should be exempt from Poor-rates; but a decision of the House of Lords, two or three years since, respecting the Mersey Docks, rendered them all liable to assessment by the parish authorities. General attention has been excited, and on Tuesday week, a large deputation of gentlemen from the principal cities and towns of the Kingdom, headed by his Royal Highness the Duke of Cambridge, and the Earl of Harrowby, waited on the Premier and the Chancellor of the Exchequer, to bring the subject before them. The Earl of Harrowby introduced the deputation, and spoke to the question generally. The Duke of Cambridge attended as President of Christ's Hospital, and other gentlemen on behalf of the various insitutions in their respective localities. From the testimony of all, it appeared that the effect on the charities generally would be depressing, and in many cases disastrous, as the benefits conferred by these institutions must be very much restricted, and many schools necessarily given up, if the rates are imposed. Mr. Disraeli in reply to the various addresses said, that he had listened with great interest to the statements of those around him, and thanked them for drawing the attention of Government to a question of such great social importance. He promised them that it should be considered in a spirit adequate to the occasion, and to the importance of that assemblage.

Troops in Mauritius.

ON Friday evening, in the House of Commons, Sir J. Pakington stated that orders had been sent out for a strict inquiry into the circumstances underwhich a regiment had been suffered to land in Mauritius, when the island was in an unhealthy condition. He further added, that last year he sent out orders, giving full power and discretion to the officer in command to remove the troops whenever the health of the island rendered that step advisable, and to prevent mistakes he had repeated these orders.

In the face of this the country will want to know more about the case, and the report of the "strict inquiry" ordered will be impatiently expected.

The Contest for the West Middlesex Coronership.

Since the election of Dr. Diplock to the office of Coroner, as recorded in a recent issue of The Medical Press and Circular, Dr. Hardwicke has taken active steps to follow up the proceedings necessary to test the validity of that election, and appears to be sanguine of success in the attempt to unseat Dr. Diplock. It was stated on his part, at a recent meeting of the ratepayers at Acton, that Dr. Diplock had not polled more than 500 *bona fide* freehold votes, the rest being made up of questionable and illegal elements. Of this nature were the votes of 300 odd graveholders (Dr. Hardwicke 100) and 277 watermen (Dr. Hardwicke 76), which, if struck off, would give Dr. Hardwicke a sweeping majority. Men, he added, had been brought up from Poplar, Limehouse, Woolwich, and Westminster (places not in the western division at all) and had recorded their votes for Dr. Diplock. Dr. Hardwicke had placed himself in the hands of a committee connected with the medical profession, who had made up their minds to see this issue to the last, no matter what it should cost.

The Punishment of the Lash.

The repudiation of corporal punishment by the House of Commons, after a thorough discussion of the subject, in which its advocacy was backed by an appeal from Government, was an assertion of principle which cannot be misunderstood or disregarded. In a House of 280 members, and by a majority of 25, Mr. Otway carried his condemnation of the practice, and by this vote the "cat" no longer "harmless" or "necessary," has been taken from the hand of those who apportion the soldiers' punishment. We can record an unqualified approval of this step, without identifying ourselves with mandein humanitarianism or sympathy with ruffianism. We do not commend the abolition of the lash because there is anything essentially wrong in its use, but because the cases in which its use is applicable may be dealt with, in our opinion, more effectually by other means. Every one is aware that there are school boys whose feelings can be reached by no gentler persuasion, and who are all the better for an occasional flogging, but they are whipped because there is no other way of getting over the difficulty. If they were salaried servants as soldiers are, we would consider that our service was better without them, and would turn them out of it incontinently, and this is at the same time the most desirable and most economical means of dealing with the refractory soldier.

Hospitals for Contagious Diseases.

The sum of £20,000, included in the vote of £968,400 for buildings which elicited so much debate in the House of Commons last Wednesday, is an appropriation of the public money which is hardly open to cavil, even from the most rigid economist. That it should appear in the estimates at all under the circumstances of a vote so largely increased as to make necessary an apology from the Secretary for War, is an evidence that the authorities are thoroughly alive, not only to the urgency of the requirements of the service in this respect, but to the magnitude of the results which have accrued from the working of the Contagious Diseases' Act.

We earnestly hope to see the system, when it has been confirmed by the test of time, applied to the civil population, and we can conceive no sensible reason why a real and tangible gain in the public health should be confined entirely to the public services. We hope it will not sound disrespectful if we say that the movement for counteracting the extension of venereal disease in the Army and Navy is a financial movement altogether. The War Office has not entered on a crusade for the moral reformation of soldiers and sailors, but have simply arrived at the practical conclusion that prevention is cheaper than cure, and that it costs less money to check the propagation of the disease in its original source, than to maintain in idleness the numerous victims, whose time represents so much current coin, and to pension off a certain percentage of educated and valuable men. The principle, if not very admirable, is at least likely to prove more lasting than any moral consideration, because, in the form of pounds, shillings, and pence, it will annually come home to the comprehension of the War Office and the House of Commons. The same incentive for the application of the same principle to the civil population, must be less forcible, though we have no doubt that even in an economic point of view, a check on the unlimited spread of venereal disease will commend itself to thinking men, and the moral and physical gain to the public cannot fail to force itself upon general attention when we are more fully informed of the working of the system. Extraordinary as the paradox may seem, the theory has been started, and that in no ambiguous language, that it is the inalienable right of the free-born Briton to acquire and retain syphilis in any form he may desire, from the chancre to the node, and to propagate the same as he may have the occasion, and that any proposal to restrict that right is an invasion of the provisions of Magna Charta. In substance, and almost in words, this refusal has been given to the request for his co-operation by a gentleman connected with the University of Dublin, to whose opinion usually much authority is attached, and whose cloth might be supposed to confer a prejudice in favour of the moral view of the question. If we must notice such a theory at all, we would say, as we have said before, that no interpretation of the liberty of the subject ever could entitle a person to extend pernicious results of his acts beyond his own person. No one is allowed to propagate small-pox, or to annoy others by abuses of appetite, and in a much greater degree the propagation of syphilis ought to be reprehended. We can hardly conceive that such a theory is seriously put forward, and we can rest on the belief that it is too monstrous to be received, even from the source from which it comes.

The Scottish Universities.

We hope the signs of jealousy evinced by a section of Edinburgh graduates towards their brethren of St. Andrews will soon pass away. The senate refused to join in a factious and unworthy opposition to the just claims of St. Andrews got up by the University Court, a body consisting of only eight members.

Dr. Alexander Wood and Dr. Christison were both present at the meeting when this illiberal vote was agreed to—the latter in the chair. It is well to know who are ready to advocate the erection of petty boroughs under the pretence of University constituencies. Should Parliament take notice of this jealousy, it might adopt the suggestion that has been made of giving only one member to the four Scotch Universities. In that case, the profes-

sion would not forget to lay some of the blame on those who were so illiberal.

Steps have already been taken by candidates for the seat to be conferred on St. Andrews and Edinburgh Universities. Mr. Campbell Swinton's friends have issued a circular in the legal interest. Dr. Lyon Playfair's have adopted a similar course in hope of securing the medical votes. We have heard on excellent authority that Mr. Moncrieff will be solicited to stand, and that if he consents, he will obtain much legal support. Besides this, we know that two or three physicians are thinking of seeking the support of the medical graduates.

Gagged to Death.

It is not in the least necessary to a feeling of unmitigated disgust to assume that the sailor who died on board of the "Favourite" under the use of the gag, lost his life by suffocation, for the infliction of so cruel an ordeal is sufficiently abhorrent to humanity to insure its earnest condemnation. The evidence of the medical officers that the gag did not prevent respiration was perfectly true, but it may have given rise to præcordial excitement or depression, which would have been as fatal as asphyxia.

Therapeutical Committee of the Harveian Society.

We are requested by the Secretary to say that at the first meeting of this Committee, held on the 13th inst., at the house of Dr. Fuller, it was determined to commence proceedings by taking up the following subjects for investigation, viz :—The *natural history* of rheumatic fever and its treatment by, first, alkalies ; second, blisters. The natural course of acute idiopathic pleurisy, and its treatment by calomel and opium with fomentations, iodide of potassium and fomentations ; and the natural course and treatment of acute eczema. Several sub-committees were appointed to carry out the different inquiries.

It was also resolved to circulate the subjoined questions amongst the medical men of the United Kingdom, and to ask the co-operation and assistance of the profession generally in carrying out the objects of the committee:—

Queries.—Have you found any of the following drugs, viz :—Digitalis, Cantharides, Chlorate of Potash, Belladonna, Arsenic, Quinine, and the Tincture of the Muriate of Iron (as distinguished from the other forms of Iron), particularly useful in any special form of disease? In what form of preparation and in what doses are you in the habit of administering these drugs ; and what results have you observed to follow their administration in the diseases to which you refer?

Can you, from your personal knowledge, give any information respecting the use and doses of any drug not commonly employed, or respecting any method of treating any disease, which you have found particularly useful in your practice ; or can you give information as to any fact in therapeutics not commonly known to the profession?

Answers to any of these queries will be gladly received by the Honorary Secretaries, J. B. Curgenven, Esq., 11, Craven Hill Gardens, W., and W. Hickman, M.B., 1, Dorset-square, N.W., of whom copies may be had, and any further information obtained.

Dr. Gale, whose recent suspension will be remembered, has been restored to office by the Poor-law Board.

Dr. Gee has obtained the office of Assistant-Physician to St. Bartholomew's Hospital, and Dr. Tatham a similar post at the Brompton Hospital.

The Guardians of St. Pancras, according to a report we have just received, deserve great credit for the improvements they have effected during the past year.

Dr. Crane has issued a report on the health of Leicester, which shows the town to be in a good sanitary condition. He is to be congratulated on the manner in which he has performed his duties as health officer.

The Regius Professor of Physic at Cambridge will commence his course on Pathology on the 22nd of April.

MEETING OF THE PROFESSION AT MASBRO'.

As announced in a former number the meeting of the medical profession was duly held at the Prince of Wales Hotel, Masbro', to endeavour by united and unanimous action to raise the present payment made by the various sick clubs and societies for professional attendance during sickness or disablement. Dr. Blythman, of Swinton, presided, and there were present Messrs. Hardwicke, Robinson, and Wilkinson, Rotherham ; Crossley, Maltby ; Carmichael and Walker, Masbro' ; Muir, Wombwell ; Clarke, Wentworth ; J. Burman, W. Burman, and W. Syson, Wath ; J. H. Casson, Riddings ; W. T. P. Smith, Barnsley ; H. Walker, Sheffield ; and Drew, Chapeltown.—In opening the meeting, the Chairman remarked that whatever was resolved upon should receive his cordial support. —Dr. Syson, the hon. secretary, said the gentlemen would see by the circular they had received what was the object wished to be attained. He contended that three shillings per head per annum, the average payment in that district, was wholly inadequate considering the increased price of the articles required. He had had five years' experience of this fact, but it could not be remedied except by unanimous action.— Dr. Hardwicke said that in the Rotherham district they had nothing under four shillings.—Dr. Robinson suggested that the scope of the meeting should be enlarged, and that a Medico-Ethical Society be formed the same as at Manchester and other places.—Mr. Clarke was of the same opinion. Speaking of the working men, he said they were utterly improvident while earning wages, and when they were struck down by sickness, they were exceedingly careless as to the payment of their medical account. Nineteen out of every twenty in his district would not pay for attendance for their wives and children unless they were summoned in the County Court ; hence it was necessary the profession should unite and work for their mutual benefit. For a number of years he was surgeon to a large ironworks in Scotland, and an arrangement was there made whereby the men received medical assistance for themselves and families, and he thought if a similar course was adopted here it would be of advantage. —After a long and desultory conversation, it was resolved, on the motion of Dr. Hardwicke, seconded by Dr. Syson —"That it is the opinion of this meeting that united and unanimous action should be taken to fix the minimum for medical attendance on clubs and sick societies at 5s. (within a radius of three miles) ; clubs to be at liberty to contract for surgical attendance as well by payment of 1s. per head extra per annum."—It was further resolved, on the proposition of Mr. Crossley, seconded by Dr. Drew—"That surgery be defined to include all cases the payment of which is not provided for by the Poor-law Board."—Dr. Smith moved, and Mr. Carmichael seconded—"That every certificate granted beyond the club, which a medical man attends be charged 1s. as a minimum."—The proposition was adopted. After deciding to form some such society as that suggested, the meeting separated.

Scottish Registrar-General's Report.—From this report we select the following particulars which will chiefly interest our readers. They show that the year 1867 was characterized by a low rate of mortality in Scotland. The deaths in that year reaching 69,024, amounted to 21·45 per thousand, the average of the ten previous years being 21·8 per thousand. In England the death-rate was 21·9 per thousand, which also was below the previous ten years' average of 22·5 per thousand. The improvement in the mortality of Scotland, in 1867, was entirely in the rural districts. In these the ratio was only 16·2, the average being 17·0 per thousand; in the town districts the ratio was 25·8, the average being 25·5. The mean of 55 meteorological returns in Scotland shows a mean temperature of 45·7 deg., in 1867, the highest 85 deg. and the lowest 6 deg ; the mean daily range 11·5 deg. Amount of rainfall 38·52in. Hours of sunshine only 1·518.

Proceedings of Societies.

SURGICAL SOCIETY OF IRELAND.

FEBRUARY 28, 1868.

Mr. PORTER, Vice-President of the College, in the Chair.

(Continued from page 276.)

ON THE USE OF CARBOLIC ACID IN THE TREATMENT OF SOME CASES OCCURRING IN THE SURGICAL WARDS OF THE MATER MISERICORDIÆ HOSPITAL.

MR. TYRRELL said—Mr. President, I have published in the *British Medical Journal* of the 18th of last January, a report of three cases of acute bursitis treated by early incision and carbolic acid, and in the same communication expressed myself warmly in its favour. As my opinion, after further and more extensive experience, is somewhat altered, I think it only proper that I should lay before the Surgical Society, the details of some of the cases which have caused the change.

I need not remind the Society, how much surgery is indebted to Mr. Lyster, for the introduction of the antiseptic principles of treatment in surgery, and so much interested was I with the report read in Dublin before the British Medical Association last summer, and so anxious was I to see its efficacy tested, that I went to Glasgow last September for that purpose. There, Mr. Lyster's house-surgeon most kindly explained to me (in the wards of the Royal Infirmary) the manner in which it was used, and also dressed some cases while I was in the hospital. He spoke in the most eulogistic terms of its great use.

I also paid a visit to Edinburgh, and Mr. Syme most kindly brought me through his wards, where I saw several cases dressed with the carbolic acid precisely as in Glasgow. My stay, in either city, was not sufficiently prolonged, to allow me to watch, for myself, the progress of the cases under the carbolic acid treatment.

On Wednesday, 8th of January, I amputated immediately above the wrist the hand of a man named Baxter, who had been admitted into the Mater Misericordiæ on the 5th of last December, for extensive epithelioma of the back of the hand.

Two arteries merely were ligatured, and one twisted with Syme's torsion forceps, an instrument which I can confidently recommend as a sure means of arresting hæmorrhage from comparatively large arterial trunks when properly used. The wound was sponged with the carbolic lotion, as recommended by Mr. Syme in his article entitled—"Illustrations of the antiseptic principle of treatment in surgery," which was published in the *British Medical Journal* for January the 4th, and the stump dressed with the carbolic oil.

The dressing was removed on the 4th day, and it was remarked that the edges of the wound were adherent, but not firmly united; the stump was neither painful, red, nor hot. I was quite delighted, and remarked that the patient would be quite well, and the wound completely healed, in a few days. The same dressing was reapplied. On the sixth day, however, suppuration was fairly established, the edges which had been united were separated, and as the patient complained very much of the smell of the carbolic acid sickening him, I had no hesitation in substituting simple tepid water dressing for it, as it had failed to procure the early union for which I sought, and had most confidently expected.

The man was dismissed from hospital, quite recovered, a few days since.

Case 2.—Mrs. Brennan, aged 50, a strong healthy woman, was admitted on the 14th of January under my care, for the removal of a large fatty tumour (it weighed after removal two pounds), situated between the scapulæ. It was ten years growing. I performed the operation on the 22nd. The skin was with difficulty separated from the tumour; one or two vessels bled rather smartly and were twisted; sponged the wound with the carbolic lotion, stitched the wound with wire sutures, and applied a plaster of carbolic acid.

The wound was not disturbed till the 4th day, when, upon taking off the carbolic acid plaster, the lips of the wound were found not to have united. I removed the sutures and dressed the wound again with carbolic acid paste. On the 6th day again removed the dressing, and found a copious suppuration established. The cabolic acid was now given up, and warm tepid dressing substituted in its place.

The wound healed very slowly; it was only last Monday she left the hospital.

Now, although in the two cases just detailed I took every precaution, and followed accurately the directions of Mr. Syme, still primary union was not obtained in either, although the patients were in apparently excellent health. I think it but proper to lay them before the profession, even at the risk of being told by so distinguished an authority as Mr. Syme, that such testimony tends to reflect more on the practitioner than on the practice.

I shall now read a report of two other cases, in which the carbolic acid treatment was most satisfactory.

Case 3.—A little girl, æt. 10, of decidedly strumous diathesis, was admitted last month under my care. She had several scrofulous ulcers on the left leg, and a small chronic abscess in the lower part and external side of the right thigh.

I laid open the abscess under a curtain of the carbolic oil. The dressing was removed on the fourth day. There was a slight serous discharge from the wound on pressure. I reapplied the dressing, and in two days more the wound was quite healed.

Case 4.—Patrick Farrell, æt. 19, was admitted on the 9th of last November. He was in a most pitiable state, worn down by want of rest, literally covered from head to foot with large eczematous patches, from which exuded—here a serous, there a purulent discharge; in some places deep cracks or fissures were present, and daily large dry crusts were detached. An abominable stench was exhaled from the entire surface. He stated he was labouring under his present illness for the last six years.

As both sides of his body were equally affected, I thought it a good case to try the relative value of different modes of local treatment, while I gave Fowler's solution in five ♏ doses three times daily, in conjunction with the occasional use of a saline and chalybeate aperient.

Accordingly, I desired two of my pupils to take charge of the case, and directed one of them to apply (as soon as the crusts had been removed by light poultices) various ointments, as a mixture of the spermaceti, pitch and sulphur, the ung. zinci. oxydi., &c.; the other to paint the opposite side with carbolic oil, in the proportions of 1 to 10.

It was remarkable how soon a difference was apparent between the two sides of the body; while the one to which the carbolic oil was applied was rapidly healing, the itching removed, and the fœtid odour counteracted, the other side showed very little tendency to get well. So marked was the difference that the patient himself begged to have his whole body given up to the student using the carbolic acid, which was accordingly done; and in three weeks the patient was convalescent. The excoriations and fissures were healed up, the intolerable itching was entirely relieved, and his skin no longer exhaled a fœtid odour. I gave up the use of the arsenic after having used it for a month, and directed him to take three draughts daily, each containing two grs. of carbolic acid. The carbolic oil was also applied daily over any spot which showed a tendency to return. I dismissed him last week, his skin clean and smooth.

Dr. M'Call Anderson, in his valuable treatise on eczema, speaks highly of the value of carbolic acid, and says there can be no doubt that it possesses many valuable qualities, and that it is destined ere long to play a very important part in therapeutics.

I think, sir, it would be most advisable that we should learn from other members of this society what has been their experience of the value of carbolic acid, and if the reading of this short paper has that effect I shall rejoice.

MR. CROLY would mention some cases in which he had used the carbolic acid dressing with great success—viz., a case of amputation of the breast, a case of severe injury of the hand from a circular saw, severing the thumb and four fingers, a case of gun-shot wound of the thumb which was amputated, a case of onychia in which he removed the nail, a case of fistula in ano, and a case of very unusual fracture of the lower end of the thigh where the femur protruded. He thought this dressing was one of the greatest successes in surgery, especially applicable in cases such as he had mentioned. The breast to which he had alluded healed with facility, and there was a complete absence of fetor.

MR. MCGRATH, 8th Hussars, had used carbolic acid dressing in the treatment of primary syphilis with great success, at least so far as the local symptoms were concerned. He had seen very lately a distinguished surgeon in Manchester use carbolic acid in the treatment of gonorrhœa. The acid was very much diluted with oil, smeared on a bougie, and used in the subacute stages of gonorrhœa. The opinion of that eminent surgeon was that it counteracted the generation of pus. In his (Mr. McGrath's) own hands it had not been so successful.

Mr. FLEMING said he had taken an early opportunity of testing the value of this very useful therapeutic agent. He had the advantage of seeing Mr. Lyster apply it in the Richmond Hospital on the occasion of his recent visit to Dublin. The first case in which it was used was that of chronic abscess of the lower part of the thigh. There were two modes of applying the carbolic acid, one as a liniment, the other as a lotion—in the latter the fluid being mixed with certain portions of cold drawn linseed-oil; and in the former the acid being used in certain proportions with water. The liniment was had recourse to in the case to which he referred, and unquestionably the result of the treatment was most successful. The opening of the chronic abscess was not followed by any of those evil constitutional symptoms which often supervened in such cases. The process of reparation was slow, but ultimately cure was effected, and no fever ensued. In three or four cases of chronic abscess he (Mr. Fleming) had used this dressing with satisfactory results, and he had found the lotion most useful in cases of amputation. In one case of a compound fracture of both bones of the leg he resorted to carbolic acid dressing. The constitution of the young woman, the subject of the accident, was most unfavourable, and the result had not been satisfactory as regards osseous union, but otherwise, the carbolic acid had the desired effect, no suppuration supervened, and the evil consequence of ordinary compound fracture did not arise. As to its use in gonorrhœa, if the lotion were weak it might be used with impunity. He had known it to have been used in a case of internal hæmorrhoids, which protruded after defecation, and were accompanied by a fetid viscous secretion. The gentleman who was thus afflicted had resorted to other applications without effect, but the relief he derived from the carbolic acid was extreme. He (Mr. Fleming) had used it as an injection in chronic catarrh of the bladder, particularly in those cases where the discharge was fetid, and Sir Henry Thompson had used it in cases of lithotomy. He thought carbolic acid deserved every attention from the profession as a useful addition to their therapeutic remedies.

Mr. HEWITT remarked that linseed-oil was liable to become rancid, and if used in such a condition with the acid, he could easily conceive that it might become an irritant. The cases in which it failed, however, should not interfere much with their opinion of it as a remedy; for each remedy depended for its effects on the vital conditions of the parts, and as the vital conditions of parts differed very much the effects of the remedy would also vary. That was the universal opinion of all who had turned their attention to therapeutics. He was not surprised, therefore, if in some cases carbolic acid did not prevent suppuration or cause cohesion.

Mr. BURNE said, that as surgeon to the South Union, he had seen a great many cases of gangrenous stomatis, and had treated them successfully with carbolic acid lotion, keeping the patients up by stimulants.

Dr. P. WHITE had seen the carbolic acid dressing used by his colleagues in Jervis-street Hospital, and it was to a very considerable extent a failure, and in no case was it so successful as had been described. There was one class of cases in which it was of great value, and in which he had been using it for four years—namely cases of eczema. A child who had gone the round of the Workhouses, recently came under his care, suffering from chronic-eczema of the scalp. Every other remedy had been tried but without success. He put the child under treatment by carbolic acid and glycerine, and in one fortnight the scalp was improved, and when removed to a Fever Hospital, having unfortunately been attacked by fever, she was perfectly cured of eczema of the scalp. He had used carbolic acid, also, in the form of eczema attacking the legs, arms, and various parts of the body with the same result. There was but one case in which it failed. He treated a lady a year and a-half ago with carbolic acid for eczema of the legs, and cured her. About a fortnight ago she again came under his care, suffering from the same affection. He thought he would improve the treatment by combining arsenic with the carbolic acid; but she came back with her legs literally covered with eczema, from the knees to the ankles. He then put her on iodide of potash, and Dr. Neligan's application, and she recovered; and he had a letter from her the other day saying, she was now perfectly well. With regard to the value of this agent in preventing fetor, he thought they were too much inclined to overlook the preparation of creosote. The odour of this was less unpleasant to him than that of carbolic acid, and its action was more efficient. He had used it both for correcting fetor in cases of gangrenous ulcers and wounds, and in cases of fetor or discharges from the intestines. He might mention a case, which was under his care, of a lady dying of diseased brain. She got an attack of fetid bronchitis. The fetor was removed by the use of chloride of lime. Following that, she was attacked with a most horrible fetor every two hours before the action of the bowels, fetor so great that no one could bear to come into the room. The chloride of lime failed, and he then prescribed creosote internally, and with the most prefect and marked success. She took the creosote pills regularly, and if it happened that one of them was omitted, which occasionally occurred, the fetor returned.

Dr. MCDOWELL said he had in his private practice a case of rupial syphilis, with extensive ulceration of the surface of the body. In this case, after he removed the scabs by poulticing, he employed carbolic acid in the form of a lotion, giving the patient at the same time sulphite of magnesia, and supporting his strength by stimulants and beef-tea. Under the use of carbolic acid the fetor was entirely removed, the pain was relieved, so much so that the patient could sleep without the use of anodynes, which before were necessary, and in a short time the ulcerated surface was completely healed. So satisfied was he of the efficacy of the carbolic acid that he was now determined to employ it in similar cases under his care in the Lock Hospital, the result of which he would bring under the notice of the society.

Mr. STOKES had had some experience of the treatment of wounds by carbolic acid, and could endorse all that had been said in its favour by Dr. Tyrrell and others who had spoken. There could be no doubt that this treatment of Lyster's was a very great improvement in surgical therapeutics. He should be sorry to say anything against Dr. Lyster, for whom he had the highest respect, but he thought it right to mention that three years ago he saw this treatment adopted in the Hotel Dieu, and his friend Dr. O'Grady told him that it was five years since Dr. Maisonneuve had first published his work on treatment by phenic acid, which was carbolic acid and water, in the proportions of 1 to 30. He (Mr. Stokes) had used it largely in the treatment of wounds and injuries in the Meath Hospital, and with uniform success.

Dr. RICHARDSON observed that he would mention two cases which were recently in the Adelaide Hospital. One was a case in which he amputated the thigh and used the carbolic acid, and in that case hardly a drop of matter formed from the beginning to the perfect healing of the wound. On the other hand, Dr. Barton amputated a thigh on the 15th of the present month, by Teale's method, and the greater part of the wound united by the first intention, although, he believed, carbolic acid was not used, showing how difficult it is, in many cases, to arrive at sound conclusions regarding the action of remedies.

Dr. HARGRAVE said that tar water and creosote were amongst the most valuable remedies which they possessed. Chloride of zinc, properly prepared, was one of the best means of correcting fetor, and it also acted as a powerful anodyne. In the City of Dublin Hospital he had a case of perineal cancer; the fetor was very great and the pain extreme. It occurred to him to apply chloride of zinc, and it not only removed the fetor, but gave the patient relief from pain, so that it was not necessary to give him opiates, which before he had taken freely. Within the last two years we had received from M. De Morgan, of the Middlesex Hospital, testimony as to the value of chloride of zinc. In removing the breast he washes the surface of it with the solution, and it heals in a most satisfactory manner. He thought it was a mistake to be running after new ideas and new medicines, which they often found to fail, while they neglected their old friends who had stood to them so well. He lately had a case of very extensive abscess over the sacrum. He treated it at first with iodine, and then tried carbolic acid, which gave some relief, but he thought if he had kept the patient on iodine she would be better.

Mr. TYRRELL, in reply, said he was gratified at having elicited the opinions of men who had had large experience in the use of this new therapeutic agent. He agreed with Professor Hargrave that they should not desert their old friends, but he thought at the same time they should try new ones, and if they succeeded, make the fact known. He had shown both the faults and the virtues of their new friend. He was not a great advocate for the use of carbolic acid in all cases; nor did he believe, so far as his practice had gone, that it produced union sooner than cold water. He had brought forward the result of cases in which it had failed, particularly as he had lately published some cases in which the treatment had been

successful. From what he had heard that night, he was sure carbolic acid was of great use, but he did not think the opinions of Syme and Lyster, as to its value, were fully borne out.

(After the chair was vacated, the men whose patellæ had been fractured, were examined by the members.)

DUBLIN OBSTETRICAL SOCIETY.

THIRTIETH ANNUAL SESSION, 1867-68.

SIXTH MEETING.

THE Society met in the Hall of the College of Physicians on Saturday, March 14,

Dr. HARDY, President, in the Chair.

The PRESIDENT announced that the Council of the Obstetrical Society waited upon the President and Fellows of the College of Physicians to request permission to have the use of the College Hall for the meetings of the Society, and that the request had been freely and cordially acceded to, and that, consequently, the meetings of the Society would for the future be held in that hall.

The following resolutions were then passed :—

Proposed by Dr. M'CLINTOCK, seconded by Dr. DARBY :—"That the marked thanks of the Society be given to the President and Fellows of the King and Queen's College of Physicians for their courtesy in granting the use of the College Hall for holding the meetings of the Society."

Proposed by Dr. SAWYER, seconded by Dr. FITZPATRICK :—"That our marked thanks are due, and are hereby given, to the Governors and Guardians of the Lying-in Hospital, for having granted to this Society the free and gratuitous use of the Rotundo Rooms, a privilege which it has enjoyed and exercised ever since its formation in 1838, and which it now relinquishes solely in consequence of the College of Physicians having kindly placed their hall at the service of the Society."

Proposed by Dr. CRONYN, seconded by Dr. KIRKPATRICK :—"That the Fellows of the King and Queen's College of Physicians be, and are hereby invited to be, present at the meetings of this Society."

Dr. C. F. MOORE exhibited an ovum of about six weeks or two months old, in which a large effusion of blood had occurred between the chorion and amnion, and stated—

D. D——, a tolerably healthy-looking woman, aged 30 years sent for me for threatened abortion on the 7th of March.

I enjoined rest in a cool room, and ordered a mixture containing sulphuric acid. On the evening of the 8th the tumour was expelled per vaginam, and I now beg to submit it to the society.

I am indebted to Dr. John Barker for being able to exhibit the ovum with the embryo admirably shown.

When I obtained the specimen it was distended with dark-coloured blood, effused outside the amnion.

D. D—— has been married about five years. She lately lost two children, a boy and a girl, of "measles and whooping-cough." The younger would have been thirteen months old if alive now. Very early on the morning of the 6th, she sustained a shock from fright, and it was on the evening of the 8th that the fœtus was expelled; altogether she lost a good deal of blood.

She last menstruated on the 2nd of January; she experienced "sourness of stomach" about a month or six weeks before the abortion occurred. I would, therefore, suppose the fœtus to be between four and six weeks old.

D. D—— was doing well when last seen.

Dr. BYRNE read a paper on retention of the menses from imperforate hymen, in which he detailed three cases.

Dr. HALAHAN read a paper on anomalies in the mechanism of parturition, wherein he stated that the head sometimes, though rarely, passes from the third German position to the first, and from the fourth to the second, external rotation taking the course usual where the third only changes to the second, and the fourth to the first.

Dr. J. GUINNESS BEATTY read a case of rigid perineum, in which the operation proposed by Dr. T. E. Beatty in a paper read before the Society in January, 1867, had been performed.

It was the woman's first labour. The head had been pressing on the perineum for two and a-half hours. The perineum was greatly distended, but the head made no progress. With a pair of scissors Dr. J. G. Beatty divided one inch of the perineum in the median line, and as the head was still retarded, he divided a quarter of an inch more, when the head was at once expelled, and without further laceration, and the patient made a good recovery.

Parliamentary Intelligence.

ON Thursday last, Sir J. SIMEON asked the Secretary to the Poor-law Board, what were the grounds on which the board accepted the resignation of Dr. Rogers, the late medical officer of the Strand Union; and whether that resignation implied anything unfavourable to the character or to the professional ability of Dr. Rogers.

Sir M. HICKS-BEACH replied that, owing to disputes that had occurred, the board of guardians had suspended Dr. Rogers on the ground that his conduct had been characterised by discourtesy, and had tended to bring the board into disrepute, and that his conduct had been such as to render it impossible that they could work harmoniously together. The Poor-law Board had inquired into the subject, and he was enabled to state that no complaint had been made of any want of professional ability on the part of Dr. Rogers, or of anything otherwise unfavourable to his character.

RATES FOR SANITARY IMPROVEMENTS.

Lord ENFIELD asked the Under Secretary of State for the Home Department, whether any defect existed as regarded the levying of rates for sanitary improvements in the provisions of the 49th clause of the Sanitary Act, 1866, and of the 2nd clause of the Sewage Utilisation Act, 1867; and if so, whether he proposed, during the present session, to bring in any measure to remedy the same, and whether any steps had been taken, under the provisions of the above-mentioned acts, to remedy the imperfect state of the drainage of Acton, Chiswick, and a detached part of Ealing, as reported to the Home Department in October, 1866, by Mr. Fulton, the Engineer.

Sir J. FERGUSSON replied that there was the defect in the law to which his noble friend referred. There was a question as to the power which the Home Secretary might exercise with respect to the overseers as regarded the levying of rates. The opinion of the law officers of the Crown was taken last year, and they seemed to be of opinion that the act did not give to the Secretary of State power to issue his precept for the levying of additional rates; but as his right hon. friend believed that the power was given, he was prepared to try the question in several cases, and, if necessary, he was prepared to apply to Parliament for additional powers.

The house then went into a committee of supply, and a vote of £280,800, in addition to £100,000 already voted, for the hospital establishments, was agreed to.

Correspondence.

"CONSANGUINITY."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your Correspondent "Consanguinity" asks a question which has been, and probably ever will be, the subject of dispute.

Prima facie there appears no reason why two persons *perfectly* healthy should generate disease in their offspring; but we must find two members of one family perfectly free, not only from physical and constitutional, but mental defect also; or the offspring may be expected to develop more strongly the idiosyncracies of their parents. Arguing by analogy, the laws of nature appear opposed to such unions—the lower orders of animals visibly deteriorate if limited to one stock, while crossing with other breeds improves them in every respect.

In cattle breeding especially, where this matter has been carefully studied, the improvement has been remarkable.

In the vegetable kingdom we observe similar results—land will not produce the same crops year after year in perfection.

In many parts of Great Britain, especially in some of the Western Isles, the effect upon man may be traced; perhaps some of your readers will favour you with a report.

I give you the opinion of a clergyman in charge of a valley in a northern country, 12 miles in length, containing a popula-

tion of 1800, entirely pastoral, sprung from about half-a-dozen persons.

"They are all cousins, extremely ignorant and pig-headed; the Australian aborigines are gentlemen in comparison, many of them have never seen an ear of corn growing; we have to send upwards of twenty miles for a cabbage; only one sheep is killed in a week; they all live upon porridge."

"Two clergymen and a schoolmaster have become insane during the past six years. The valley is beautiful in the summer, a charming place to go on a visit, but quite out of the civilized world."

Such is the mental condition to which they are reduced, that they make no effort to improve their position, but are sunk to a dead level of intellectual inferiority.—Yours, &c. C. G.

DR. LETHEBY'S LECTURES ON FOOD.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—It would, doubtless, be a great boon to the profession, if physiologists would agree together on something as true, and stick to it; but whilst statements diametrically opposed to each other are constantly issuing from these oracles, medical men must toss up to ascertain which oracle they are to follow, a state of things quite sufficient to account for the present unsatisfactory results of medical practice. If a physician, relying on the statements of one physiologist, that a substance, considered by all other physiologists to be a poison, is a food, prescribes it to his patient, it is no wonder that his patient gets worse instead of better under such treatment; and yet this is the position that Dr. Letheby has assumed with respect to alchohol in your issue of March 4th, page 199, where he speaks of the drunkard's food as consisting mainly of "fat forming food," an observation which, if it has any meaning, must refer to the convertibility of alcohol into fat by the animal economy, a fact denied by nearly every other physiologist, including the repentant Liebig himself, who first gave currency to the statement.[1]

Again, we find Dr. Letheby stating, at page 198, that two pounds of bread without an admixture of *animal food* cannot support life in man, a statement totally untrue, if Dr. Letheby means by bread whole-meal bread, and not the unwholesome fabrication of the baker—viz., white bread,[2] which every physician and physiologist should at once banish from society. White bread and water alone will not, I admit, support animal life, though whole-meal bread and water will, but from the loose and vague manner in which Dr. Letheby has stated the matter, it is impossible to decide which kind of bread he refers to. Now, as a matter of fact, opposed to his statement (supposing him to mean brown bread), I quote the following passage from page 412 of that incomparable work, "Sylvester Graham's Science of Life," where Captain Hawland, of New Bedford, Mass., states, "I have often hired men to labour for me in Russia, which they would do from sixteen to eighteen hours, and find themselves, for 8 cents. per day (the sun shining there sometimes twenty hours a-day). They would come on board in the morning with a piece of their black bread, weighing about *a pound*, and a bunch of garlieks as big as one's fist. This was all their nourishment for the day of sixteen or eighteen hours' labour. They were astonishingly powerful and active; and endured severe and protracted labour far beyond any of my men. Some of these men were eighty and ninety years old, and yet these old men would do more work than any of the middle-aged men belonging to my ship. In handling and stowing away iron, they exhibited most astonishing power. They were full of agility, veracity, and even hilarity—singing, as they laboured, with all the buoyancy and blithesomeness of youth."

Now, as to Dr. Letheby's statement about the insufficiency of vegetable food for men required to perform heavy and laborious work, the evidence on the subject, which is ponderous in amount, is totally opposed to Dr. Letheby's ideas. The evidence against his views is so abundant and cumulative that the difficulty I find is in making a few selections from it. Adam Smith, in his "Wealth of Nations," informs us, for instance, that "the Irish chairmen, porters, and coal-heavers in London who have been raised principally on the potato, and who continue to subsist on vegetable food, are, perhaps, the strongest men in the British dominions." "Brindly, the celebrated canal engineer, informs us that in the various works in which he was engaged, where the workmen being paid by the piece, each exerted himself to earn as much as possible, men from the North of Lancashire and Yorkshire, who adhered to their customary diet of oat-cake and hasty-pudding, with water for their drink, sustained more labour, and made greater wages than those who lived on bread, cheese, bacon, and beer—the general diet of labourers in the south."

Alluding to the salt and coal-heavers in Liverpool and London, Captain Price, of New Bedford, Mass., states, "I have been surprised at their great strength and power of endurance in comparison with their simple and scanty diet. Their food consists principally of oatmeal and other coarse bread, and cheese, dining on about four ounces of coarse bread, and two or three ounces of cheese. On one occasion two of these men came alongside of my ship with a boat-load of salt for me, and *one* of them actually *threw* that salt with a shovel *up nine feet on to the deck* of my ship as fast as *two* of *my men could throw it into the hold*."

The following case may be cited as the result of a direct comparison between the effects of animal and vegetable food in enabling men to endure protracted and severe exertion:—

"Thomas McGoodin, a man about 40 years old, small frame, and weighing 130 lbs., was induced from religious considerations (nine years previously) to abandon the use of animal food, and adopt a simple vegetable and water diet, when a competition arose in the beetling department of the factory in which he was engaged, in which the ability of the labourers to endure powerful and protracted effort was severally tried. Two stations requiring precisely the same exertion were to be occupied for several days in succession. McGoodin was assigned one of them, and occupied it through the whole time without flagging in the least; while the other station was *successively* occupied by three or four of the strongest men in the establishment, all of whom were actually tired out, and obliged to be relieved. The overseer declared that he believed McGoodin would kill every man in the establishment if they were obliged to hold their way with him till he gave out. McGoodin also laboured from one to two hours a-day longer than any other man."—Sylvester Graham, page 419.

"The Polish and Hungarian peasants from the Carpathian Mountains, 'says a young Polish nobleman,' are among the most active and powerful men in the world; they live almost entirely on oatmeal bread, and potatoes. The Polish soldiers under Bonaparte would march forty miles in a day, and fight a pitched battle, and the next morning be fresh and vigorous for further duties."—Sylvester Graham, page 401.

As regards animal food for invalids, Dr. Cheyne says, "For those who are extremely broken down with chronic disease, I have found no other relief than a total abstinence from all animal food, and from all sorts of strong and fermented liquors. In about 30 years' practice in which I have advised this practice, I have had but *two* cases in whose total recovery I have been mistaken, and they were both too deeply diseased and too far gone for recovery before I undertook with them."

Knowing, sir, the mischief that arises in the treatment of disease from the erroneous supposition of medical men regarding the nutritious effects of vegetable and farinaceous food, I have felt compelled by a sense of duty to humanity thus to come forward and combat the mischievous doctrines propounded by Dr. Letheby. Against that gentleman I have no animus of any kind, but feel strongly opposed to the principles he promulgates. There is no more potent source of disease, in my mind, than overfeeding, and especially over-indulgence in animal food—an indulgence which a belief in his doctrines would tend to increase and perpetuate. The prescription of meat and stimulants of every kind to invalids is well-known

1 The researches of the most eminent chemists and physiologists all combine in showing that alcohol is a *poison*, and unassimilable by the system, which it leaves in the same form as it entered it, causing by its expulsion a waste of vitality. Dr. Trall states that he never saw anything but evil result from its use in disease, and improvement always to follow its disuse. Respecting the erroneous belief in alcohol, Dr. Carpenter has well observed:—"The whole medical art is based upon *experience*, and the value of any remedy *can only be fairly tested* by the *omission* of it in some of the cases in which it has been reputed to be *most successful*. Nothing can be stronger than the reputation which alcoholic stimulants have acquired, as affording efficient aid in the maintenance of the bodily strength under circumstances calculated to exhaust it; and yet the most unimpeachable testimony has shown the fallacy of this opinion, and put *universal* experience *quite* in the wrong. So it has sometimes, nay, often, happened that medical men have assured staunch teetotallers that they would die unless they admitted alcohol into their system as a medicine; but *the patients, being obstinate, did neither, thus* falsifying the prediction in a very unexpected measure, and proving that the experience of doctors is not more infallible than that of the public."

2 The cause of white bread not supporting animal life, is the same as that which causes the death of cattle, if fed exclusively on corn, without the addition of hay—viz., too highly concentrated nutriment, and the absence of the woody or indigestible element. Bulk, or a duly diluted nutriment is an essential condition of every form of food. How little is this fact recognized or acted on in practice?

to be highly injurious by all those who have had experience of treating them without them, as delaying recovery, and tending to exhaust vitality. For ample evidence on this subject I would refer the reader to "Sylvester Graham's Science of Life," and the various and manifold works of Dr. R. T. Trall, of New York. Apologising for trepassing thus far on your space, the importance of my theme being my only excuse, I remain, sir, your obedient servant,

RICHARD GRIFFITH, Ch.M.

St. Anne's Hill, Cork.

Medical News.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.—The twentieth anniversary festival of this charity was celebrated at the London Tavern, on Wednesday the 26th, Lord Feversham, one of the vice-presidents of the institution, in the chair, supported by the Sheriff of London and Middlesex, Messrs R. N. Fowler, Tucker, F. A. Bevan, and others. The report showed that the number of patients treated in the hospital during the year 1867, amounted to 582, of these 522 were more or less relieved, and 60 died. The total of out-patients treated during the year amounted to 14,210, and the whole number treated since the opening of the hospital in 1848, now numbered 141,791. The noble chairman made a forcible appeal to the liberality of the public, on behalf of this hospital, which relieves so many of the poor in the East of London, and set a splendid example by himself contributing £100 to the funds; other donations and subscriptions came in freely and generously, and, in the course of the evening, the sum of £2800 was announced by the Hon. Secretary (Mr. Sewell) as having been received. The medical staffs of the hospital were represented in the persons of Drs. Peacock, Bennett, Birkett, Ward, Thorowgood, Fenwick, Baumler, and Rickards. The toast of the medical officers was responded to by Dr. Ward, in an able speech.

STATISTICAL SOCIETY. — Thirty-fourth Annual Meeting.—Council and Officers for 1868-69 (those marked *a* are new members). President—The Right Honourable W. E. Gladstone, M.P. Council—*a*H. W. Acland, M.D., F.R.S.; Walter Bagehot, M.A.; Major-General Balfour, C.B.; *a*Thomas Graham, Balfour, M.D., F.R.S.; R. Dudley Baxter, M.A.; Lord Belper; Sir John Boileau, Bart., F.R.S.; Samuel Brown; William Camps, M.D.; *a*Hyde Clarke, D.C.L.; Leonard Henry Courtney; William Farr, M.D., D.C.L., F.R.S.; William Augustus Guy, M.B., F.R.S.; James Thomas Hammick; Frederick Hendriks; James Heywood, M.A., F.R.S.; William Barwick Hodge; Right Hon. Lord Houghton; Francis Jourdan; John Lambert; Leone Levi; *a*Sir John Lubbock, Bart., F.R.S.; William Golden Lumley, LL.M.; *a*Sir James Ranald Martin, C.B., F.R.S.; William Newmarch, F.R.S.; Frederick Purdy; Rev. J. E. T. Rogers, M.A.; *a*Alderman Solomans, M.P.; Colonel W. H. Sykes, M.P., F.R.S.; and Jacob Waley, M.A. Treasurer—James Thomas Hammick. Honorary Secretaries—William Augustus Guy, M.B., F.R.S; William Golden Lumley, LL.M.; and Frederick Purdy.

THE Royal Commission on Water Supply held their meeting at the House of Lords, on the 25th and on the 26th inst. Present—Sir John Thwaites, in the chair; Colonel Harness, R.E., C.B., Sir Benjamin Phillips, Thomas E. Harrison, Esq., C.E., Joseph Prestwich, Esq., F.R.S.; and the Secretary, Mr. W. Pole, F.R.S.

LONDON GAS.—The medical officer of health, for the city of London, has issued a report on the qualities of the gas during the past 12 months, and as London gas has been for some time the occasion of an exciting controversy, we avail ourselves of his labours to publish a few of the facts he has reported. He made 2677 examinations of the gas during the period in reference to its illuminating power. The chymical quality of the gas had been subject to great variation; in fact, of 659 experiments that had been made to determine the proportion of sulphur in the gas supplied to the city during the year, there were 263 occasions when the quantity of that impurity was in excess of the amount sanctioned by Parliament. The results of the experiments showed that occasionally for three months together the quantity of sulphur in the gas of each of the companies had been comparatively small, and then for months again it had been excessive. This shows that there is great irregularity in the manufacture and purification of the gas. Taking the average of the whole year, the amount of sulphur in the gas had not been in excess of the quantity sanctioned by Parliament, but the fluctuations had been excessive. Of the 220 examinations made of the Great Central Gas there were 71 occasions when the quantity of sulphur was more than the Act sanctions. Of the 219 examinations of the Chartered Gas 92 were in excess of it, and of the 222 of the City Company's Gas 100 were in excess. Altogether, the failures to comply in this respect with the requirements of the Act of Parliament amounted to nearly 40 per cent., but in the three preceding years it averaged 56 per cent. There was, therefore, some improvement in that particular; and if the present practice of the Great Central Company in using lime for the purification of the gas be carefully followed out, as Mr. Hawksley and Dr. Letheby had recommended, the quantity of the sulphur in the gas would, no doubt, be kept, as it now was, under the amount sanctioned by Parliament. Sulphuretted hydrogen, another impurity, had always been absent from the gas of each of the companies; but as regarded ammonia the proportion had constantly been excessive in the Chartered Gas, and occasionally so in the Great Central.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The following *urgent* cases have been relieved during the month of March:—

1. A medical man, aged 39, Kingstown, M.R.C.S.E. and L.A.H.I. Far advanced in phthisis, has a wife and seven children, all young, and no means of support. 1st application. Recommended by Drs. Barton, Hudson, and Smyly. Granted for immediate necessities £10.

2. A medical man, aged 53, Co. Galway, M.R.C.S.E., has lost, under circumstances of peculiar hardship, a public appointment, which he held for 26 years; has a very delicate wife. A small annuity, which has been handed over to pay his debts. 1st. application. Recommended by Drs. Adams, Johnston, Denham, and Elliott. Granted for immediate necessities £10.

3. A widow, aged 44, Dublin. Husband, M.R.C.S.E., lost at sea when proceeding to America. Two sons, one in Canada, the other in Australia, and a daughter now dying of phthisis; for some years maintained herself with the assistance of friends, now dead. Granted last year two sums of £5. Recommended by Drs. Collis and Mason. Granted for immediate necessities £5.

NOTICES TO CORRESPONDENTS.

Dr. DAVEY, Bristol, is thanked for his communication.

Dr. WEBSTER, Bristol.—The glasses may be had on application to Messrs. Fannin and Co., Surgical Instrument Makers, 41, Grafton-street, Dublin.

Dr. RAMSDEN, Staithwaite.—Mr. Berkeley Hill's book on "Bandaging" is published by Mr. Walton, Gower-street.

A SUBSCRIBER retiring from practice is anxious to dispose of an articulated skeleton, some surgical instruments, books, &c. Amongst the latter are "Braithwaite's Retrospect" and the publications of the new Sydenham Society from the commencement; the *Medical Circular*, bound, from 1854, and the *Medical Press* since its incorporation in 1866. Particulars can be obtained on application to the London Office of this paper.

M. B.—There is an old maxim respecting "What is bred in the bone, &c.," which is very applicable in the present case. There can be no doubt of the ability and energy of the person named; having, however, the distinguishing characteristics of the "Ancient People," the practices are scarcely surprising.

Several letters are unavoidably held over for want of space.

BOOKS, PAMPHLETS, &c., RECEIVED.

Report of the Medical Officer of Health for the Limehouse District.

Professor Tyndall on Faraday as a Discoverer—being Lectures delivered before the Royal Institution.

New York Medical Journal.

The Natural and Morbid Changes of the Human Eye. By Charles Bader.

Plates Illustrative of Same, in cloth wrapper. London: Trübner and Co., Paternoster-row.

Seventh Annual Report of the North London Consumption Hospital.

On the Practicability of the Dry Earth System. By Thomas Hawksley, M.D.

Vaccination Impartially Reviewed. By F. E. Jencken, M.D.

Hanover-square for March.

Portraits of Eminent Medical Men. London: John Churchill.

La France Medicale.

Why we should not be Poisoned, because we are Sick.

Lecture on the Turkish Bath. By R. Barker, M.R.C.S.

Treatment of Cases of Insanity. By Thomas Prichard, M.D.

Bible Animals. Longmans and Co.

Annual Report of the Devonshire Hospital.

Report of Annual Meeting of Subscribers to the Devonshire Hospital.

Review of the History of Medicine. Vols I. and II. By Thomas A. Wise, M.D. London: John Churchill and Sons.

Recollections of the Paris Exhibition. By E. Rimmel. London: Chapman and Hall.

Hardwicke's Science Gossip.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 8, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S THIRD LECTURE ON FOOD.

CONSTRUCTION OF DIETARIES: PREPARATION AND CULINARY TREATMENT OF FOODS.

(Continued from page 260).

In associating different articles of diet, so as to secure the right proportions of the several constituents of food—fat, sugar, or starch, and nitrogenous matter, we find that we may not only rely on the sound indications of science, but may also trust, and trust safely, to the unerring guidance of our instincts—provided they have not been vitiated by fashion or perverted by evil habits. Science teaches us that the best proportions for the common wants of the animal system are about 9 of fat, 22 of flesh-forming substances, and 69 of starch and sugar; and experience also shows that these are the very proportions which we are constantly striving to maintain in our daily dietaries. Borrowing largely from the graphic illustrations of Liebig and Johnston, I may state that, whenever one kind of food is wanting in any particular constituent we invariably associate it with another that contains an excess of it. Certain meats, for example, which are deficient of fat are always eaten with substances that are rich in it—bacon is associated with veal, with liver, and with fowl, or we capon the latter, and thus increase its natural fat. We use melted butter with most kind of fish, or we fry them in oil; while the herring, the salmon, and the eel, are usually fat enough in themselves, and are dressed and eaten alone. It is with a view to similar adjustment that we mix eggs and butter with sago, tapioca, and rice; that we add oil and the yoke of an egg to salad; that we boil rice with milk, and eat cheese with maccaroni. The same instinct has determined the use of vegetables with meat, and butter with bread. Bacon and greens, or beans and bacon, like pork and peas-pudding, is a conjunction of viands which does not owe its popularity to old habit or the mere taste of the epicure; and so with a dish, common in Ireland, under the name of Kol-cannon—the potatoe, which is poor in gluten, and the cabbage, which is usually rich in this ingredient, are mixed together, and thus they approach the composition of wheaten bread, but both of these substances are deficient in fat; add, therefore, a little bacon or fat pork to the mixture, and you have a Kol-cannon, which has all the good qualities of the best Scotch oatmeal, and to many it is more savory and palatable. Again, the mixture so usual in Ireland and Alsace, of butter-milk or curdled milk and potatoes, and the combination of rice and fat which makes the diet of eastern nations; even the little dab of butter upon the poor man's potatoe, and the bit of cheese that he eats with his bread for dinner, are matters not of luxury but of necessity, and they show how by long experience we have at last learnt to adjust the proximate constituents of food, so as best to maintain the health and vigour of the body.

And then again, the times for taking food, and the proper distribution of it in appropriate meals are questions of considerable importance, notwithstanding that they have ever been influenced by the caprices of fashion, and the artificial habits of society. How much they have had to do with the modifications of the human species, and even with the extinctions of whole races of men is an etiological problem of much interest.

Man in his savage condition feeds with great irregularity, for when he finds that food is plentiful he eats from morning to night, and knows no other pleasure than that of eating and drinking and sleeping; but when it is more scarce he is content with a single meal a-day. In both cases, however, the quantity of food consumed is excessive. We are told by travellers that the Hottentots, the Bushmen, and the inhabitants of Southern Africa, who feed in this manner are enormous gluttons—ten of them, says Barrow, ate in his presence a middling sized ox, all but the hind legs, in three days; and the three Bosjesmen that accompanied his waggon, devoured a sheep on one occasion in less than 24 hours. Captain Parry also, with Ross and others, have given the most astonishing accounts of the dietical capabilities of the Esquimaux. Captain Parry once tried the capacity of a young lad scarcely full grown, and in 24 hours he had eaten 4 lb. 4 oz. of the raw hard-frozen flesh of a sea-horse, the same quantity of it boiled, 1 lb. 12 oz. of bread and bread-dust, besides a pint and a quarter of rich gravy soup, a tumbler of strong grog, three wine glasses of raw spirits, and nine pints of water. According to Sir John Ross, the daily rations of an Esquimaux are 20 lbs. of flesh and blubber. But the most marvellous example of gluttony is given by Captain Cochrane, on the authority of the Russian Admiral Saritcheff, who was told that one of the Yakuti had consumed the

hind quarter of a large ox in 24 hours, together with 20 lb. of fat, and a proportionable quantity of melted butter. To test the truth of this, he gave him a thick porridge of rice boiled down with 3 lbs. of butter, weighing together 28 lbs.: —although the glutton had already breakfasted, yet he sat down to the meal with great eagerness, and consumed the whole of it without stirring from the spot; and except that his stomach betrayed more than ordinary fulness, he showed no sign of inconvenience. Captain Cochrane further adds that a good calf weighing 200 lbs. will just serve for a meal for four or five Yakuti; and that he has himself seen three of them consume a rein-deer at a meal. Liebig accounts for this by saying that a nation of hunters, especially when they go naked and are exposed to great losses of temperature, must consume large quantities of respiratory food; and if it so happens that the food is in its least effective form, as lean flesh, the quantity disposed of is enormous.

Among civilized nations, and until comparatively recent time, there were but two meals a-day—namely dinner and supper. These were the meals of the Romans—the *prandium* or dinner being for the most part a light refreshment eaten while standing, at about 9 o'clock in the morning; and it generally consisted of the cold remains of yesterday's supper. It was commonly taken without wine, and in fact there was so little ceremony about it, that Plautus in his comedies, has facetiously called it *caninum prandium*. The great meal of the day was the supper or *cœna*, which was taken about 3 or 4 o'clock in the afternoon, and to which friends were invited. This was the ceremonious meal for which the wealthy and high families of Rome exhausted the resources of luxury and art. It always consisted of three parts—the *gustus* or antipast, which was intended as a mere smack or relish to wet the appetite. Then came the main part of the feast—consisting of many courses, with a chief dish or *caput cœna*; and when in thrifty families it was the only dish which went the round of the frugal board, it was aptly termed the *cœna ambulans*. After this there came the second course or *mensa secunda*, composed of fruits and pastry like a modern dessert.

The sums of money expended by the wealthy Romans on this meal were often ruinous. Vitellius is said to have spent as much as 400 *sestertia* (about £3228 of our money) on his daily supper; and the celebrated feast to which he invited his brother Lucius, cost no less than 5000 *sestertia* or £40,350 sterling. It consisted, according to Suetonius, of 2000 different dishes of fish, and 7000 of fowls, with other equally numerous meats. His daily food, says our classical writers, was of the most rare and exquisite nature, the deserts of Libya, the shores of Spain, the waters of the Carpathian sea, and even the forests and coasts of Britain, were diligently searched for dainties to supply his table; and had he reigned long, he would, says Josephus, have exhausted the great opulence of the Roman Empire. Ælius Verus, another of those worthies, was hardly less profuse in the extravagance of his suppers; for it is said that a single entertainment, to which only about a dozen guests were invited, cost above six million sesterces (6000 *sestertia*, or nearly £48,500); and we are told by historians that his whole life was wasted in eating and drinking—being spent in the voluptuous retreats of Daphne, or else at the luxurious banquets of Antioch. So profuse, indeed, was the extravagance of those times, that to entertain an Emperor at a feast was to encounter almost certain financial ruin—one dish alone at the table of Heliogabalus has been known to cost about £4000 of our money; no wonder, therefore, that these imperial feasts were lengthened out for hours together, and that every artifice, often revolting in the extreme, was used to prolong the pleasure of eating, or that Philoxenus should have wished that he had the throat of a crane with a delicate palate all the way down.

Hardly less extravagant were the dining propensities of our own forefathers, who in every way copied too closely the luxurious habits of their Roman conquerors. In fact, no circumstance, as Mr. Wright observes, is more remarkable in ancient history, than the readiness with which the people who came under the sway and influence of Rome, abandoned their nationality and followed the luxurious habits of their rulers. Even so late as the time of Holinshed, the famous chronicler of the 16th century, the manners of the English were the subject of severe comment; for he tells us that "in number of dishes, and changes of meat, the nobility of England (whose cooks are, for the most part, musical-headed Frenchman and Foreigners) do most exceed; sith there is no day in manner that passeth over their heads, wherein they have not only beef, mutton, veal, lamb, kid, pork, cony, capon, pig, or so many of these as the season yieldeth, but also some portion of the red and fallow deer, beside great variety of fish and wild fowl, and thereto sundry other delicates, wherein the sweet hand of the sea-faring Portingale is not wanting; so that, for a man to dine with one of them, and to taste of every dish that standeth before him, is rather to yield unto a conspiracy, with a great deal of meat for the speedy suppression of natural health, than the use of a necessary meal to satisfy himself with a competent repast to sustain his body withal." He adds, too, "that gentlemen and merchants keep much about the same rate; and when they make their ordinary or voluntary feasts, it is a world to see what great provision is made of all manner of delicate meats from every quarter of the country, wherein, beside that, they are often comparable herein to the nobility of the land; so that they will seldom regard anything that the butcher usually killeth, but reject the same as not worthy to come in place. In such cases, also *geliffes* of all colours, mixed with a variety in the representation of sundry flowers, herbs, trees, forms of beasts, fish, fowls, and fruits; and there unto *marchpane* wrought with no small curiosity, tarts of divers hues, and sundry denominations; conserves of old fruits, foreign and home-bred; suckets, codiniacs, marmalades, sugar-bread, ginger-bread, florentines, wild-fowl, venison of all sorts, and sundry outlandish confections, altogether seasoned with sugar, besides infinite devices, not possible for me to remember."

The learned Caius, also, in his counseill against the sweat of the same century (1552) comments in severe terms on the gluttony of his time, saying that the reason why the disease attacks the English more than others is that they have "so moche sweating stuffe, so many euille humoures laid up in store, fro this displeasante, feareful, and pestilent disease, cause of their euille diet, whiche destroy more meates and drynckes withoute al ordre, conenient time, reason, or necessite, the either Scotlande or al other countries under the sunne."

Gradually, too, as the dinner got to be later in the day, and reached noon-time, there was necessity for a light early meal, or *breakfaste*, as it was called; and as the dinner became later and later still, a fourth meal was added—the *lunch* or *luncheon*, which literally meant a slice of bread. In process of time, also, with the introduction of tea and coffee into England, there came a fifth meal; but all along the dinner was the great feast of the day; and the rule in using it was pretty much as Dr. Kitchener in his time advised—namely, to eat until there was a sense of satiety, the stimulus of every fresh dish being but as a whip to the appetite, so that the sense of satiety might come and go a dozen times. "It is produced in us," says Christopher North, "by three platefuls of hotch-potch, and to the eyes of an ordinary observer our dinner would seem to be at an end; but no; strictly speaking, it is just going to begin. About an hour ago did we, standing on the very beautiful bridge of Perth, see that identical salmon, with his back-fin just visible above the translucent tide, arrowing up the Tay, bold as a bridegroom, and nothing doubting that he should spend his honeymoon among the gravel-beds of Kinnaird or Moulenearn, or the rocky sofas of the Tummel, or the green marble couches of the Tilt. What has now become of the sense of satiety? John—the castors!—mustard—vinegar—cayenne—catchup—peas and potatoes, with a very little butter—the biscuit called "rusk"—and the memory of the hotch-potch is as that of Babylon the Great." Sense of satiety indeed!—"We have seen it for

a moment existing on the disappearance of the hotch-potch —dying on the appearance of the Tay salmon—once more noticeable as the last plate of the noble fish melted away—extinguished suddenly by the vision of the venison—again felt for an instant, and but for an instant, for a brace and a-half of as fine grouse as ever expanded their voluptuous bosoms to be devoured by hungry love."

We smile at the accounts given of the gormandizing powers of the natives of Arctic regions and the savages of Southern Africa, but our own habits in eating and drinking are scarcely less preposterous. Look at a modern dinner: beginning with soup, and perhaps a glass of cold punch; to be quickly followed by a piece of turbot or a slice of salmon with lobster-sauce; and while the *caput cœnæ*, the venison or South Down, is getting ready, we toy with an oyster patè or a bit of sweet-bread, and mellow it with a bumper of Madeira. No sooner is the venison or mutton disposed of, with its never-failing accompaniments of jelly and vegetables, than we set the whole of it in a ferment with champagne, and drown it with hock or sauterne. These are quickly followed by the wing and breast of a partridge, or a bit of pheasant or wild duck; and when the stomach is all on fire with excitement, we cool it for an instant with a piece of iced pudding, and then immediately lash it into a fever with undiluted alcohol, in the form of cognac or a strong liqueur; after which there comes a spoonful or so of jelly as an emollient, a morsel of ripe stilton or paté de foie-gras as a digestant, a piquante salad to wet the appetite for wine, and a glass of old port to persuade the stomach, if it can, into quietness. All these are more leisurely succeeded by the *mensa secunda*, or dessert, with its ices, its preserves, its bakemeats, its fruits, its geliffes, codiniacs, and suckets, as Holinshed would call them, and its strong drinks; to be afterwards muddled with coffee, and complicated into a rare mixture with tea, floating with the richest of cream.

As a modest example of this sort of thing, and an indication moreover of the kind of novelties yet in store for us, let me read to you the *menu* of a late dinner at the Langham, where horse-flesh was the principal *viande*. It is very appropriately prefaced with a little bit of French philosophy—"*Les préjugés sont des maladies de l'esprit humain.*

"*Potages*—Consommé de cheval. A la purée de destriers. *Amontillado.*

"*Poissons*—Saumon à la sauce Arabe. Filets de soles à l'huile hippophagique. *Vin du Rhin.*

"*Hors-d'œuvres*—Terrines de foie maigre chevalines. Sancissons de cheval aux pistaches syriaques. *Xérès.*

"*Relevés*—Filet de Pégase rôti aux pommes de terre à la crême. Dinde aux châtaignes. Aloyau de cheval farci à la centaur e aux choux de Bruxelles. Culotte de cheval braisée aux chevaux-de-frise. *Champagne sec.*

"*Entrées*—Petits pâtés a la moëlle Bucéphale. Kromeskys à la Gladiateur. Poulets garnis à l'hippogriffe. Langues de cheval à la Troyenne. *Chateau Perayne.*

"SECOND SERVICE.

"*Rots*—Canards sauvages. Pluviers. *Volney.* Mayonnaises de homard a l'huile Rossinante. Petits pois a la Française. Choux-fleurs au parmesan.

"*Entremets*—Gelée de pieds de cheval au marasquin. Zephirs sautés à l'huile chevaleresque. Gateau vetérinaire a la Ducroix. Feuillantines aux pommes des Hesperides. *St. Peray.*

"*Glaces*—Crème aux truffes. Sorbets contre-préjugés. *Liqueurs.*

"*Dessert*—Vins fins de Bordeaux. Medère. Café.

"*Buffet*—Collared horse-head. Baron of horse. Boiled withers."

Even put into plain English all this would sound remarkable, and taken, as it is said to have been, without shying or gibbing, although, perhaps, with a little bolting, it must have puzzled the stomach; and, like all our modern dinners, must also have severely taxed its powers, in selecting from the complicated mess, the right proportions of fat and flesh, and farinaceous matter required for the sustenance of the body.

Nor is it right to content ourselves like savages, with a single meal a day, as was the custom of Dr. Fordyce, the celebrated Professor of Chemistry of the last century. Studying the habits of carnivorous animals, and reflecting on the principles of chemistry and physiology, he came to the conclusion that man required but one meal a day for all his physiological wants; and for more than twenty years his daily dinner was as follows:—Regularly at four o'clock of an afternoon, he would present himself at "Dolly's chop-house," and take his seat at the table reserved for him. Immediately on his arrival the cook would place a pound and a half of rump-steak upon the gridiron, and while it was cooking the doctor would amuse himself with some such trifle as half a broiled capon, or a plate of fish, and a glass or two of brandy—his regular allowance being a quarter of a pint. Then came the steak with a full accompaniment of bread and potato, and it was always served with a quart tankard of strong ale. This was followed by a bottle of old port; and, when the dinner was finished, as it invariably was in an hour and a half, he walked leisurely to his rooms in Essex-street in the Strand, where punctually at six o'clock he met his class and gave his lecture on chemistry.

But these are not the habits of the great bulk of mankind, and although they may have been practised for a while with impunity, yet they serve not as illustrations of what ought to be done in the way of eating, but rather as examples of the wonderful accommodating power of the stomach under the most disadvantageous circumstances; for experience teaches us that three meals a day, of the simplest quality, are best suited for our wants—breakfast to supply the want of long fasting, and to restore the waste of secretion during the night; dinner in the middle of the day to support the system during the fatigue of ordinary labour; and a light meal at night, in the form of tea or an early supper, to carry on the functions of repair and secretion during the night. According to Dr. Edward Smith, the daily distribution of the food, supposing a physiological diet of 4300 grains of carbon, with 200 grains of nitrogen to be taken, should be somewhat in this manner:—

	Carbon. grs.	Nitrogen. grs.
For breakfast	1500	70
For dinner	1800	90
For supper	1000	40
Total in the day	4300	200

So that about one part should be eaten for supper, one and a-half for breakfast, and about two parts for dinner.

It is hardly necessary to say, that in constructing dietaries, the foods should be associated in such a way as not to offend the appetite or burden the digestive powers; and that they should, also, be varied from time to time, not merely in their kind, but also in their treatment, as in the manner of cooking and flavouring them; for the best descriptions of food will, if eaten in the same fashion day after day, occasion disgust, and be wasted. This is often the case in the badly arranged dietaries of workhouses, and on ship-board. It was once so with the dietaries of the English army, when the same daily rations of boiled meat were provokingly served out to the men, while they listened to the tune of "Oh the roast-beef of old England." All this is easily provided for, and it is true economy to do so, by varying the food, the mode of cooking it, the manner of flavouring it, and by serving it, in the case of dinner, with different kinds of vegetables.

In constructing dietaries, therefore, the main considerations are the due supply of the right proportions of nitrogenous and carbonaceous matters; for when these are not adjusted in a proper manner, the health is endangered, and the constitution may be slowly undermined. To use the words of Liebig—"there is a law of nature which regulates these things, and it is the elevated mission of science to bring this law home to our minds; it is her duty to

show why man and animals require such admixture in the constituents of their food for the support of the vital functions, and what the influences are which determine, in accordance with the natural law, changes in the admixture.

"'The knowledge of the law elevates man in regard to an important function which he possesses in common with the lower animals, above the level of those beings which are destitute of reason, and supplies him, in the regulation of those bodily wants which are essential to his existence and prosperity, with a protection which the lower animals do not require, because in them the commands of the instinctive law are not opposed or over-powered by the allurements of sense or by a perverted and resisting will.'"

The recognition of this law, and the practical application of it to the dietaries of a community, are obviously of great advantage, for not only would they tend to increase the health and strength of the population, but they would also effect a great economy in the general use of food. That there are difficulties in the way of such an application cannot be doubted; in fact, the natural peculiarities of individuals, to say nothing of the differences of occupation, and the ever varying quality of the food itself, are enough to create a doubt as to the possibility of its general application until the progress of science has gone far beyond its present position. Nevertheless, there are certain well-acknowledged facts at our disposal which may safely serve as a guide to practice.

The diseases which are incidental to an abuse of the law can hardly be discussed in this place, but it may be said in general terms, that too much or too little of either of the main constituents of food will soon be followed by marked derangements of the animal body. An excess of respiratory food not only promotes the growth of fat, but actually interferes with the nourishment of muscular tissue. Those who feed largely on rice, on potatoes, or other farinaceous foods, or who indulge too freely in malt liquors, have commonly a bloated appearance, and have no faculty for sustained exertion. The brewer's drayman, for example, is a bad subject for the ward of a hospital; and although he sometimes looks strong and muscular, yet in reality his vital power is feeble, and his tissues are fatty rather than muscular. The same is often the case with animals in the Zoological Gardens, when too large a quantity of respiratory food has been eaten, and their flesh has undergone a kind of fatty degeneration.

On the other hand, when the plastic elements of the food are in excess, the system becomes excited, too much blood is formed, and diseases of a plethoric character are induced. According to Liebig and his followers, an excess of force is developed, which manifests itself in irritability of temper, and in a savage disposition. How far this may be concerned in the frequently ungovernable conduct of our over-fed convicts may be deserving of consideration. A nation of animal *feeders*, says Liebig, is always a nation of hunters, for the use of a rich nitrogenous diet demands an expenditure of power, and a large amount of physical exertion, and this is seen in the restless disposition of all the carnivora of our menageries.

A deficiency of food, however, is quickly followed by a general breaking up of the animal frame. Plague, pestilence and famine, are always associated in the public mind; and the records of every country show how closely they are related. The medical history of Ireland is remarkable for illustrations of how much mischief may be occasioned by a general deficiency of food. Always the habitat of fever, it every now and then becomes the very hot-bed of its development. Let there be but a small failure in the usual imperfect supply of food, and the lurking seeds of pestilence burst into frightful activity. The famine of the present century is but a too forcible illustration of this, for it produced epidemics which had not been witnessed in this generation, and it gave rise to scenes of devastation and misery which are not surpassed by the most appalling of the middle age. The principal form of the scourge was known as the contagious famine fever, and it spread, not merely from end to end of the country in which it had originated, but, breaking through all boundaries, it crossed the broad ocean, and made itself painfully manifest in localities where it was previously unknown. Thousands fell under the virulence of its action, for wheresoever it came it struck down a seventh of the people, and of those whom it attacked one out of nine perished. Even those who escaped the fatal influence of it were left the miserable victims of scurvy and low fever. Another example, not less striking, of the terrible consequences of what may be truly called famine, was the condition of our troops during the early part of their sojourn in the Crimea—with only just enough of food to maintain the integrity of the system at a time of repose, and at ordinary temperatures, they were called upon to make large muscular exertions, and to sustain the warmth of the system in the midst of severe cold. What could be expected but that the scourges which wait upon famine, as fever, diarrhœa, dysentery and scurvy, should make their appearance in great force, and that the soldiers should perish by thousands. With an average strength of 24,000 men, the deaths from sickness alone, in the course of seven months, were at the rate of thirty-nine per cent., and in some cases it amounted to seventy-three. "Never before," says Colonel Tulloch, "is there record of a British army having sustained so frightful a loss in so short a time." During the Peninsular War, though the troops occasionally suffered much from sickness, the loss from that cause did not average above twelve per cent. for a whole year. Even in the ill-fated expedition to Walcheren, which threw the nation into mourning, the deaths amounted to only about 10½ per cent. for the half year; and here, in this great city, with all the aggravating circumstances of want, vice, infancy, old age and disease, it did not reach to two per cent. during the time that our strong men were dying by thousands. "Armies have perished by the sword, and have been overwhelmed by the elements, but never, perhaps," says Colonel Tulloch, "since the hand of the Lord smote the host of the Assyrians, and they perished in a night, has such a loss from disease been recorded as on this occasion." May the lesson of so great a calamity be wisely applied to the future profit of the country!

The connection of scurvy with improper or insufficient food is a matter of medical history, and its prevention by the use of fresh vegetables, especially potatoes, is so well known that it has often been the subject of legislation. Rarely appearing in the cabin, where the dietary is good, it is a frequent visitor to the forecastle; so that half the men of our sea-going vessels are found to be suffering from the disease when they return to port. As many indeed as 70 per cent. of a ship's crew are not unfrequently disabled by it; and there is no saying how much of the disasters at sea is caused by the inability of the men to work the vessel in times of severe weather. The legal supplementary allowance in emigrant vessels of 8 oz. of preserved potatoe, 3 oz. of other preserved vegetables (carrots, turnips, onions, celery, and mint), besides pickles, and 3 oz. of lemon juice for each person weekly, is found to be a perfect prophylactic of the disease, so that the one essential cause of it is evidently a privation of vegetable food.

And not less important are the morbific results of too much or too little saline matter in the food. I have already spoken of the salutary effect of certain calcareous salts in the water we drink; but according to Dr. Grange the presence of magnesian salts in the water of a district may have something to do with the development of those remarkable forms of disease which are known as goitre and cretenism. In France, Germany, England, and Sardinia, among all classes of people of all habits, and in every variety of climate, those diseases are endemic, where the soil is composed of magnesian rock, and the water charged with magnesian salts. How far the connection extends is a chemico-physiological problem that has yet to be determined.

(To be continued.)

A CLINICAL LECTURE ON THE AVOIDANCE OF AMPUTATION IN CERTAIN CASES OF SEVERE INJURY.

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GENTLEMEN—Cases in which important operations have been recommended and not performed, are always of great importance in their teaching, as regards the management of others which may occur in the future. This remark especially applies to those in which the amputation of a limb or the excision of a large joint has been the measure in prospect. To some of these I now invite your attention.

In November, 1865, we admitted a young man named Piggott, a railway porter, who had had his right foot crushed by the fall of a piece of timber. Both tibia and fibula were fractured, the tibia being much comminuted. Synovia escaped freely from a wound on the outer side of the ankle-joint. There were several other wounds and the soft parts were very much bruised. The foot was somewhat twisted but the displacement was not very great. You will see then that we had to deal with one of the most serious forms of compound fracture of the leg, that, namely, in which the ankle-joint is also involved. We decided, however, considering the man's youth and his good health, to attempt to save the limb. The wounds were covered with lint soaked in blood, and with collodion applied over it.

Inflammation of the cellular tissue of the limb and of the ankle-joint followed. We were obliged to remove the dressings within a day or two, and during the next two months we had to encounter that condition of diffuse suppuration of all the parts involved, which so often either necessitates a secondary amputation or causes the patient's death. Several times during this period the propriety of amputation was discussed, and that measure was almost decided upon. On one occasion in consultation with Mr. Adams, we both agreed that it would be necessary, but decided to wait a few days in the hope that the man might be in a more favourable condition. Meanwhile, we continued the usual measures of treatment, free incisions wherever abscesses presented themselves, a poultice to the part, and as good a diet as the man could take. Mr. Colquhoun, the dresser of the case, was indefatigable in his attention to it, and to his care I have no doubt that the ultimate result was to a large extent due.

By slow degrees the condition of things improved. The accident was on Nov. 7, and a month later he was able to eat well and was in every respect gaining ground. His pulse was still, however, upwards of 120. During the early part of January I removed several considerable fragments of bone, which had become loose, and on March 15, another large portion was taken away. On the 12th of April, just four months after his admission, he was able to leave the Hospital and return to the country. A year later he came to me to show his leg, and I will now give you the particulars of his present condition.

April 2, 1867.—*Present condition.*—He is in good health and with a thick heeled boot walks fairly. He can walk two miles or more at a time, and has no pain in the leg. It is soundly healed and has been so for some months. There is some deformity, the foot and lower portions of the bones of the leg being displaced outwards, and the lower end of the upper fragment of the tibia projecting beneath the skin. His heel is about an inch and a-half from the ground. I think the ankle-joint is stiff but he has some motion in the tarsus, which might easily be supposed to be at the joint itself.

Not only is the limb now very useful but there is every reason to believe that it will improve as time passes.

Our next case for mention is that of a man whom most of you will remember in one of the attic wards about a-year ago. He was long under treatment, and at one time his arm looked almost hopeless as regards recovery.

Joseph Shephard, aged 51, a labourer from Enfield, was admitted on the 6th of November, 1865, having had his right arm crushed under the wheel of a loaded waggon. The humerus was broken at its middle, and the soft parts were severely lacerated and contused. General inflammation of the limb followed, with extensive sloughing of the skin. Splints were out of the question, and we had to manage the fracture as well as we could, suspending the limb from a cradle. The upper fragment was much displaced outwards, and to secure apposition the limb had to be carried out at right angles with the body. Mr. Colquhoun, the dresser of the case, paid it great attention. For some time I was afraid that we should be compelled to amputate, and next when things had improved somewhat there seemed much reason to fear non-union. After the bones had stiffened somewhat, erysipelas occurred, and they became quite loose again. The poor fellow was confined to bed from November 6th to May 6th, and when, at the latter date, we sent him home he was but just able to get up. The fracture was not firm, and the wounds had scarcely healed.

A year later I wrote to him to come up for inspection, and was much pleased to find him in good health, and with a very useful arm. The fracture is now quite firm, and there is but little over-lapping. In consequence of the extensive sloughing of cellular tissue, suppuration, &c., the muscles are glued down, and their motions much impeded, but the limb is still very useful to him.

Of late years I have performed exceedingly few amputations for injuries, and only when the indications have been such as to leave not the slightest doubt. The difference in risk to life between a compound fracture of the severest kind and a primary amputation seems to be very little indeed. I do not think that you diminish the liability to pyæmia at all by amputating, and this is by far the chief danger in both. Nor has the result of my experience on the whole been favourable to the performance of secondary amputations when resorted to because the patient was doing badly. I have done many such, in the hope that removal of the source of irritation would enable the system to rally, but very rarely have I met with a good result. On the other hand, of the cases which seemed hopeless, but in which for one reason or another I resolved not to amputate, every now and then, one has unexpectedly pulled through. My impression is then that we ought to regard the state of the patient's health but little in deciding on this point. If he is bearing a compound fracture badly you may infer that he will be very likely to succumb if the shock of an amputation be added. Sometimes you hear remarks made as if the loss of the limb were the only question, and as if, would the patient consent to this, the saving of his life were a certainty. In practice, however, the cases are very few in which it is really a question of life or limb, much more usually life and limb stand or fall together. One feels inclined when looking at a compound fracture which is doing badly to reason respecting amputation, much as Macbeth did as to the murder, and to say, taking a slight liberty with the text:—

> "If he were well when 't were done, then 't were well
> It were done quickly: If" &c., &c.

In thus urging you to decline for the most part the performance of secondary amputations, and to let your patient take his chance with his limb on, I do not include cases of traumatic gangrene. In most of these it is necessary to amputate as soon as the real nature of the process is clearly shown. Nor do I wish to be boastful as to the limbs we save in these "triumphs of conservative surgery." Very often the limb is so much damaged as to be of but little use, and now and then the patient may request its removal after he has recovered, and when the final result as regards both limb and life is evident. Still in all these life has been saved, and, in most of them, the limb is a source of satisfaction, and of some degree of use.

If, then, you ask me to summarise the principal points in which the impressions I have obtained from experience differ from those with which I began the practice of surgery, I would say briefly—1st. That I have come to think less highly of amputation as a means of saving the patient's

system from irritation and exhaustion. When I have to decide as to a primary amputation I think more of the possibility of local reparation, and much less of what may ensue to the patient's system during that repair. If it is manifest that the limb can never be repaired, cut it off at once, but if there is a bare chance, then leave it on without thinking much of the effect of the suppuration on the patient's strength. A compound fracture is very dangerous, but a primary amputation of a large limb is scarcely less so. 2ndly. As to secondary amputations I would adopt nearly the same rule, that is, to estimate the local conditions, and to almost disregard the constitutional ones. If the limb has become absolutely hopeless, remove it, carefully selecting the proper time, and the later in reason usually the better. If, however, the limb is not hopeless, and the patient's constitutional symptoms are those which have led you to think of relieving him by amputation from "the source of exhaustion and irritation," then resist the temptation. Under such circumstances your patients are in the utmost danger whatever you do, but I think that in the long run they will do a little worse if you amputate than if you decline to. I speak of course only of the general rule. I know that there are exceptions, such, for instance, as when in addition to the original fracture, a large joint has recently become involved, and threatens to add its quota to the general disturbance. 3rdly. As to the time for secondary amputations. Wait till suppuration is fully established, and the inflammatory fever has subsided. When this is the case, when the wound is granulating, and the patient eating well, you may amputate with great safety. It is astonishing what patients will bear in the way of suppuration from large wounds, provided no specific pyæmia has set in. Indeed, if once free suppuration has been established without the occurrence of rigors or other pyæmic symptoms, it is very rare for the patient to sink, however hopeless may be the local condition as regards final repair. A good example of this we recently had in the case of an old woman (upwards of 70), whose left arm had been so extensively injured that the skin of almost the whole extremity was destroyed. She remained for weeks exceedingly low, with dry tongue and quick pulse. The arm was clearly beyond possibility of reparation. At length the wound granulated, and she began to improve and to take food well. Convinced now from her own inspection of her limb that it could never heal, she at length reluctantly consented to amputation. This I did just below the shoulder-joint, and she recovered quickly. Had the operation been done earlier, it is my conviction that she would have died. A few months ago I saw a young gentleman at the Reedham Orphans' Home, who had had his left foot crushed in the cogged wheel of a steam engine. Dr. Rose, with whom I had attended him, had been convinced from the first that the limb could not be saved. The ankle-joint was opened, the astragalus broken, the tarsal epiphysis of the tibia torn off, besides most extensive damage to the soft parts. Four days had elapsed from the date of the accident when I first saw him. He was feverish, and had a quick pulse, and the wound was scarcely beginning to discharge. I advised to wait, and we waited ten days longer. Suppuration was then profuse, and the wound very large, the tendo achillis and a strip of skin were the only structures which remained entire. But in spite of the discharge the boy's state had much improved, and we now amputated with, I believe, very much less risk than would have been incurred at any previous time. He did well. Two more cases, and I have done. One of them is an unsuccessful one, but I shall still in it try to justify the line of practice I pursued. One evening, about a year ago, an elderly man, very drunk, was carried in, who had been knocked down in the street, and had the wheel of a cart over his right shoulder. It did not look to be much damaged, but on examination we found the clavicle broken, and the scapula comminuted, whilst the arm was dragged so far away from the side that the fragments of the clavicle did not touch. The only wound of the skin was a hole large enough to admit two fingers in the middle of the axilla. Having passed my finger into this, I found that it entered a very large cavity, that the great pectoral muscle was torn across, and that the axillary artery suddenly ceased to pulsate about the middle of its course. There was no hæmorrhage going on, and I believe there had been but little. The limb was cool. Having diagnosed laceration of the axillary artery in addition to the other injuries, I believe that my house-surgeon and dressers were all of opinion that primary amputation at the shoulder-joint was the proper measure. I preferred, however, to try to save the limb, inasmuch as no one of the lesions was necessarily destructive to its integrity, and that the whole combined might perhaps prove quite as little serious to the patient's chance of recovery as an amputation which must remove not only the arm, but the entire shoulder as well. The laceration of the artery, although it endangered did not necessitate gangrene of the limb. We had the limb wrapped in cotton-wool, and placed close to the trunk. With extreme rapidity the whole of the damaged member passed into gangrene, and the man died on the third day. You will observe that he was a drunken man, of unsound constitution. Now, although the result of trying to save was unfortunate in this case, I am very doubtful whether amputation would have done any better, or, which is the better way of putting it, whether if two half-dozens of parallel cases were treated, the one set by amputation, and the other without, the balance would not be on the side of the latter.

My last case is one still in the wards. A dissolute woman, pale, stout, and flabby, whilst drunk, fell out of a window, and was afterwards brought here with a severe compound fracture of both bones of the right leg in the lower third. The skin was most extensively torn, the laceration almost meeting in front. The bones were comminuted, and the muscles contused. She was in a very bad state for an operation, having lost much blood, and being collapsed, in addition to intoxication. I decided to venture to try to save it, and taking advantage of the fact that the wound surrounded the back of the limb, I put it up at once in plaster of Paris, leaving the wound exposed. We kept the plaster of Paris on for some six weeks, the limb being swung. Contrary, I believe, to the expectations of all, the woman rallied slowly, and improved in health. The fracture is now united, although the wound is not wholly healed. In this case, it is my impression that primary amputation instead of increasing would have diminished her chance.

Original Communication.

ANATOMICAL NOTES—No. II.

By ALEX. MACALISTER, L.R.C.S., L.K.Q.C.P.,
DEMONSTRATOR OF ANATOMY ROYAL COLLEGE OF SURGEONS, ETC.

VII.—IRREGULARITY OF THE SPERMATIC VEIN.

THIS vessel, it is well-known, usually opens on the left side into the left renal vein, while on the right it joins the vena cavæ inferior directly. In a subject dissected, March, 1868, the right vein exhibited a singular arrangement. Passing upwards to the right side, it divided into two branches, opposite the upper border of the fourth lumbar vertebra. One of these, a larger trunk than the original spermatic, passed directly into the vena cava in the usual position, while the other ran upwards and joined the right renal about half an inch before that vessel opened into the ascending cava; it was singular in this specimen that the two branches derived from the spermatic, were either of them larger than the parent vessel. On laying them open the valvular arrangement was found to be as follows:—The valve of M'Donnell was small but distinct. Another valve existed in the spermatic vein at its point of division, but there was no sign of any fold in either of the branches, or at their openings.

VIII.—VARIETY OF THE PLANTARIS MUSCLE.

In both legs of a male subject, there existed a long curved muscular head for the plantaris, superadded to the ordinary exo-condyloid origin. This accessory belly was twice the size of the normal plantaris, and arose from the upper and anterior part of the outer condyle, and from the tendon of insertion of the vastus externus, about half-an-inch posterior to the side of the patella. It passed at first directly backwards, and then forming an arch whose concavity includes the outer condyle, it descended and joined the ordinary muscle just as it was uniting with its tendon.

An accessory or third head of the gastrocnemius is not a very rare anomaly. When it exists it arises usually from the back of the femur, and is inserted tendinous into the union of the two lateral gastrocnemial heads, I would regard this muscle as of the same type, only differing in its union being with the plantaris instead of the gastrocnemius. They both are representatives of the brachio-fascialis in the upper limb.

The same subject possessed an accessorius ad calcaneum, similar to the muscle of the same name described by Gantzer, arising from the posterior border of the tibia, and from the deep tibial fascia; passing downwards it became tendinous, and was inserted into the musculus accessorius. A muscle somewhat similar is described by Turner ("On the Variability of some Structures in Human Anatomy," Proceedings of the Royal Society of Edinburgh, 1865.)

IX.—ANOMALOUS ORIGIN OF THE DIGASTRIC.

The digastric muscle of one subject on the left side arose by a second head from the styloid process above the stylohyoid, and below the stylopharyngeus. The stylohyoid muscle was present and normal, perforated by the tendon of the digastric as usual. This additional origin has not, I think, been before noticed.

X.—THE NASAL NERVE.

I owe to my industrious pupil, Mr. Kelly, a note of the occurrence of a singular variety of arrangement, namely: the passage of the proper nasal twig of the ophthalmic branch of the fifth nerve, through the posterior ethmoidal foramen.

XI.—SUPERIOR THYROID ARTERY.

As an additional variety of the branches of the superior thyroid artery, I may mention that in one subject recently dissected, the superior laryngeal and hyoidean branches of that vessel arose by a common special trunk from the external carotid on the same level as the origin of the common trunk for the lingual and facial vessels.

XII.—STERNO-MAXILLARY MUSCLE.

The anterior fibres of the sterno cleido-mastoid muscle were attached, in a subject dissected during last month, to the angle of the jaw and the stylo-maxillary ligament, by a distinct round fascicle which lay under the cervical fascia, and crossed over the carotid vessels; this arrangement occurs in some ruminants.

XIII.—ACCESSORY PTERYGOID.

A slip of muscle which not uncommonly exists, was found in the same subject as No. IX., arising from the outer surface of the external pterygoid plate and from the lower border of the temporal crest on the great wing of sphenoid, crossing the external pterygoid muscle, it ran to be inserted along with the internal pterygoid into the angle of the lower jaw.

XIV.

On both sides of a subject recently dissected, there existed a third pectoral slip, arising from the cartilage of the sixth rib, and passing to be inserted into the capsule of the shoulder and the head of humerus, this was supplemented by a second slip, from the latissimus dorsi, which was inserted into the same place. Crossing the external or pectoral slip, and also the great pectoral, was the direct mammary artery, a large branch of the axillary rarely present, which is distributed to the mammary gland. The second slip of the pectoral, described above, is interesting, because it is an arrangement which I have figured and mentioned in some of the quadrumana (Proceedings of the Natural Historical Society of Dublin, 1866).

XV.

One of the most singular varieties in the tendons of the fore-arm muscles occurred in a subject dissected during last month; in it the flexor pollicis longus supplied the index-finger and sent no slip to the thumb, while the long tendon, which should have come from the flexor pollicis, was traceable only as far as the annular ligament, to which it was inseparably connected; the flexor sublimis was normal, and the flexor profundus supplied only three fingers; the only other anomaly in this arm was a double extensor ossis metacarpi pollicis.

Hospital Reports.

CITY OF DUBLIN HOSPITAL.

OPERATION FOR VESICO-VAGINAL FISTULA.

By Mr. CROLY.

Mrs. G., aged 35 years, a strong healthy woman, residing in the country, was attended in her fourth confinement by a midwife. The labour was tedious, and the bladder allowed to become over-distended. Medical aid was *not* sought in time, and perforation was obliged to be resorted to. The patient progressed favourably for a fortnight, and passed water naturally. It was then found that she could not retain the urine, this led to an examination, when it was ascertained that she had a vesico-vaginal fistula. Her medical attendant recommended her to the care of Mr. Croly, who admitted her into the hospital, and having examined the case with his colleague, Dr. Beatty, the fistula was discovered situated near the os uteri, and at the right side, of small size; the communication between the vagina and the bladder was oblique, and so indirect that it was difficult at first to ascertain its precise position. The patient suffered from the usual distressing symptoms, rendering her existence miserable.

Mr. Croly performed the operation in the following manner:—

The patient was placed leaning over a table of convenient height and in a proper light, the duck-bill speculum was introduced, and held well up by an assistant. The lower margin of the fistula having been raised with a double hook was "vivified" by incising it with a long-handled straight knife, and then the upper margin was similarly treated. Five fine iron wire sutures were introduced with the tubular needle at a sufficient distance from the margin and the wires drawn together by the "twister" approximated the edges of the aperture. The ends of the wire having been cut off a piece of lint was placed transversely beneath the projecting sutures to protect the soft parts. A full sized male gum-elastic catheter was then introduced into the bladder, and retained by tapes, which were secured with adhesive plaster to the back of each thigh. The woman was placed in bed in the prone position. The end of the catheter was introduced into an empty soda-water bottle placed between her thighs to receive the urine.

A sedative was administered, and small doses of opium were directed to be taken at short intervals.

The nurse was instructed to syringe the vagina several times daily with cold water and "Condy's fluid." On the fifth day the bladder was injected with water coloured with "Condy's fluid," and as none escaped through the fistula, Mr. Croly concluded that union had taken place, and accordingly he carefully removed the sutures. The result was most satisfactory, and the patient returned to her home in excellent health and spirits—the urine passing only through the urethra.

Mr. Croly observed to the pupils the necessity for making the *lower* incision first to prevent the blood ob-

scuring the view, which should result if the upper margin was first "vivified," and the necessity of inserting the sutures at a safe distance from the edges to ensure their being retained. He also explained his reason for having incised the fistula *tansversely* in the line of the muscular folds of the passage, and dwelt upon the importance of the administration of opium in such cases to prevent spasm of the bladder.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.

EXCISION OF THE KNEE-JOINT.

On the 2nd inst. we had an opportunity of hearing Mr. Butcher deliver his Introductory Clinical Lecture on Operative Surgery, with special reference to the operation for excision of the knee-joint. The theatre was filled with students, and several members of the profession were also present.

After some preliminary remarks on the history of this operation, and its revival in later years, Mr. Butcher introduced to his audience a man named John Game, a shoemaker by trade, on whom he had operated with great success fourteen years before ; and he stated that it was the first instance in which he had performed the operation in question. After a minute account of the personal history of the man, and of his state of health previous to and at the time of his admission to Mercer's Hospital, the lecturer described the operation as follows :—

The patient was placed upon a table, lying on his back, and in a few minutes was brought under the influence of chloroform. The leg at the extreme of tension was steadied, the sole of the foot being planted on the table, and was so held forcibly, while the thigh was rigidly fixed by a second assistant. Standing on the left side of the patient, the operator leant over the knee, steadying its outer side against his chest, and with a strong scalpel he cut along the inner side of the joint to about the extent of five inches; this incision was commenced below, at a point about two inches lower down than the articulating surface of the tibia, and corresponding to a line a little anterior to its inner sharp edge. The knife was at once thrust down to the bone, and, holding the same relationship, was carried upwards along the femur for three inches. The saphena vein was thus gradually left behind the track of the wound. A similar incision was rapidly made on the outside, commencing below the head of the fibula, and was carried upwards above the external condyle. Through the entire extent of this also, the knife was swept along the bones. Both vertical incisions being completed, they were connected by a transverse one, passing an inch above the attachment of the ligamentum patellæ to the tibia. The latter wound opened the joint fully. The lower flap was freed downwards a short way, while that containing the patella was dissected upwards, but with some difficulty, because of the thickly matted cellulo-fibrous tissues which constituted its bulk. The internal and external lateral ligaments were next divided, together with adventitious bands, the result of organized lymph deposits. The anterior crucial ligament was destroyed, but the deeper fibres of the posterior remained intact and incorporated by dense structure, with the posterior ligament of the joint. These in turn were divided, but much difficulty was experienced in detaching them from the posterior surface of the bones, with due consideration for the poplitæal vessels, which not only lay upon the dense elastic material, but were embedded in it. The knife was next rapidly swept round the condyles of the femur, *the disease not extending higher*. In the same way the articulating end of the tibia was freed from the soft parts around its circumference. The ligamentous structures being thus cut through, the leg was forcibly flexed, and the ends of the bones thrust forward. Now the accuracy of the diagnosis was fully verified. The femur presented its external condyle, nearly all removed by caries, while the internal condyle was not at all so extensively diseased. Its posterior half was stripped of its cartilage of incrustation, and was carious behind the intervening space. There was also caries between the condyles. The external condyle of the tibia had its cartilage of incrustation removed ; and it had been replaced by a thick fibrous substitute, while the internal condyle of the tibia presented its normal appearance—a strong evidence of the efforts of nature to check disease. The patella was carious, hollowed, and reduced to a mere shell, therefore it was carefully dissected out, the integuments being preserved, with the fibrous attachments implanted at its upper and lower edges. Having sufficiently exposed the bones, the operator proceeded to cut off their extremities, and for this purpose he used his own saw. Its blade being turned in the supports, and thus steadied, it was pressed with ease behind the condyles of the femur and made to cut forwards. A few movements sufficed to complete the section. In a similar manner its serrated edge was placed behind the tibia, and urged forwards so as to remove a thin osseous slice along with the surface of the bone. The head of the fibula was not diseased ; as it lay below the surface of the tibia it did not prevent the apposition of the bones, and was, therefore, left intact for that reason, as also because the operator did not wish to interfere with the attachment of the biceps.

Mr. Butcher now made the man walk about the theatre, and show, by various movements and evolutions, that he really had an excellent limb, with which he had been able sometimes to walk 20 miles in a-day ; and the quondam patient showed how the stiff knee was admirably fitted for pursuing his business, being, in fact, used for hammering shoes on.

He stated he was the third or fourth person who had excised joints in more recent times. He had five cases, all of which were successful : four were now living, and the fifth died of fever while in hospital after operation, but not until the bones had firmly united, a pathological fact of value, of which he had not been able to ascertain ocular proof in the other four. Here he showed the pieces of bone cut off in the several cases, and the *united* bone which had been removed at a post-mortem examination in the fifth case. The union was complete, and as firm as a rock. He also showed full-size drawings of the surfaces of the various bones, showing the extent to which caries had proceeded at the time of operation.

Mr. Butcher objected to the *semi-lunar* incision, because it does not, in his opinion, leave room to drain off the accumulated fluids, which tend to the poplitæal space, and lead to the formation of abscesses. He also objects to Syme's method of a double semi-lunar incision, one above and one below the patella, because by it the integument is partly taken away. Further, he thought the crucial incision was objectionable, because it gives too little room, and he advocated the H incision, because it saves the poplitæal space nearest the bones, and allows the fluids to escape laterally. He advised the bones to be *evenly* cut, from behind forwards, and forcibly showed the various evil results of not attending to this important point.

Further, he strongly advocated the use of chloroform, and read a report of a case operated on by the late Sir P. Crampton, in which the great suffering of the patient without the use of this anæsthetic was graphically described. If the disease extended higher than the condyles of the femur, he insisted that it was not a case for resection. He summed up thus :—

1. The case should be judiciously selected, and should not be one with too much osseous disease.
2. All the arteries should be properly secured ; and
3. The limb should be put up *at once* with the anterior splint and footboard below. He dwelt minutely on these points, which he enforced by various arguments ; and concluded amidst the applause of his audience.

Cholera is officially stated to have carried off 20,000 persons in the city and province of Buenos Ayres since its return in December last ; other accounts make the number 30,000.

Literature.

THE PHYSIOLOGY OF DIGESTION.

A TREATISE on digestion and its disorders by such an excellent physiologist as Dr. Pavy cannot fail to be both interesting and instructive. It is in the disorders of the digestive process that the teachings of physiology come in powerfully to assist the practical physician in devising methods of treatment both by diet and medicine; and though undoubtedly dyspepsia, like other diseases, has its pathology, and has been treated of recently by a most able writer from a pathological point of view, still for practical purposes of cure, it is very possible that the physiological view may be the most promising. To quote Dr. Pavy,[1] at page 6 we read:—"Pathology has not thrown much light on the subject of dyspepsia. Cases frequently happen where strongly marked symptoms of dyspepsia have been remarked during life without there being, even under microscopic examination, any textural alteration discoverable after death."

The case reported at page 98 certainly is one in point to illustrate the foregoing statement. Referring to one of his own in-patients at Guy's, ill with incessant vomiting, Dr. Pavy writes:—"His case was such as to lead to the opinion that malignant disease of the stomach existed, and a fatal result seemed rapidly approaching through the effects of sheer inanition. After a number of remedies had been prescribed in vain, half a grain of morphia was ordered to be taken in the form of a pill three times a day. The pill was retained, and its effect was almost miraculous.

"The vomiting ceased, and the patient, upon whose case so grave an opinion had been formed, and who seemed at the very verge of death, was restored so as to be able to leave the hospital in about three weeks' time."

The first 86 pages of Dr. Pavy's work treat of the physiology of Gastric digestion, and are full of most valuable information. Of special interest are the author's remarks on the digestion of the stomach itself after death. The experiments detailed are well contrived to prove that the stomach is actually digested by its own juices after death under certain conditions, and that it is not the "living principle," as alleged by Hunter, that prevents the occurrence of this result during the life of the individual, is proved by observing the digestion of the legs of a live frog, or the ear of a rabbit introduced through a gastric fistula into a dog's stomach, while digestion is in progress.

The suggestion of Bernard, that the stomach owes its escape from self-digestion and perforation during life to the protective influence afforded by its internal lining of epithelium, is disproved by the fact that the excision of a patch of mucous membrane from the stomach of a living animal is not followed by the digestion of the subjacent parts.

Digestion goes on in the stomach without the structures opposite the part denuded of epithelium exhibiting any influence of attack. Eventually, the part of the stomach that has been denuded of epithelium heals completely by cicatrization.

The view that Dr. Pavy offers, as most of our readers are, doubtless, aware, in explanation of the immunity enjoyed by the stomach from being digested by its own secretion during life, is founded upon the permeation of the walls of the stomach by an alcaline current of blood. After death the flow of this alcaline current ceases, and then the acid of the gastric juice acts upon and corrodes the stomach.

When in a living animal the current of blood in the walls of the stomach is arrested by ligature of the vessels, then digestion of the stomach wall has been observed to take place.

In the case where the live ear of the rabbit or the legs of the frog are digested, it is believed that the neutralizing power of the alcaline blood is insufficiently strong to overcome the acidity of the gastric juices.

The disorders of gastric digestion, acidity, flatulence, vomiting, &c., are all treated of severally and briefly. With respect to acidity and its cure, the author says at page 137, that by the continual administration of alcalies, "a permanent removal of the morbid state may be oftentimes brought about." For our own part we have more faith in the mineral acids than in the alcalies, as permanent curers of acidity of stomach. The prolonged use of alcalies seems to us to injure the tone of the stomach and to weaken and impoverish the blood. Where, however, the alcaline treatment fails, we are exhorted to try acids, and the nitric acid is, on the authority of Abercrombie, strongly commended.

Before we are introduced to the disorders of intestinal digestion, we have an excellent introductory chapter on the physiology of this process. The minute structural anatomy of the intestinal walls, of the valvulæ conniventes, and the villi, is given with completeness and yet in a condensed form. The observations at page 164, on the functions of the pancreas in the digestion of fat, are worthy of attention, especially now when we hear so much of pancreatic emulsion as a remedial agent in phthisis.

We are told at page 164 that the first action of the alcaline pancreatic juice or fatty matters is of a physical kind, emulsifying the fat, but after a few hours rest this milky emulsion exhibits an acid reaction, arising from the decomposition which the fatty matter undergoes. The neutral fats are acted upon by the pancreatine, and resolved by it into their constituent acids and glycerine. The liberation of the fatty acid thus accounts for the acid reaction which the emulsion after a time acquires.

We find that Dr. Pavy has seen reason to modify the views he formerly held respecting the action of the pancreas on azotized aliment. Corvisart, as is well-known, has long maintained the digestive powers of the pancreatic juice over albumen and fibrin, but Dr. Pavy was of opinion that the solution of the albumen and fibrin arose rather from putrefactive change than from the solvent action of the pancreatic juice.

After carefully going over Corvisart's experiments, Dr. Pavy has observed pancreatic juice to act as a solvent of the azotized tissues, though it does not, like the gastric juice, attack the bones.

The chapters on the treatment of functional disorders of the intestinal digestion are brief and plain; the author holds by the time-honoured Formulæ of the Guy's Pharmacopœia, which he finds sufficient to meet the requirements of those who have come under his hands as patients.

With such elaborate and complete chapters on the physiology of digestion, one is led to expect almost an equal minuteness in the chapters devoted to the physic of indigestion; and yet we would hardly call this a fault in the work, for the author speaks from his own experience, and does not string together a whole host of remedies, tried and untried; a plan which has the effect of puzzling the practical man with a very awkward "*embarras de choix*" in selecting his remedies.

1 On the Function of Digestion; its Disorders and their Treatment. By F. W. Pavy, M.D., F.R.S., Fellow of the Royal College of Physicians, Senior Assistant Physician to, and Lecturer on Physiology at, Guy's Hospital. Pp. 217. London: John Churchill and Sons.

PNEUMONIA.

Dr. William Addison, the author of "Cell Therapeutics," and of "Healthy and Diseased Structure," has issued an interesting brochure,[1] in which he maintains with his well-known ability, that two kinds of inflammation, common and specific, may be present in any given case, and that the complication is not rare in pneumonia.

He thinks that nature takes advantage of the local action of inflammation to eliminate impurities from the blood, as may be seen in external granulation. Minor impurities of blood will prevent the healing of a sore by granulation, as the surface is employed by the blood for eliminating purposes. Thus, healthy is replaced by diseased pus. Healthy granulations may be in close proximity to others degenerating into ulceration, and so in the same sore a specific and common inflammation may co-exist. If so, why not in internal inflammations like pneumonia and bronchitis.

This power of granulations to take on an eliminative action is the true explanation of the use of issues. Pneumonia from local irritation in a healthy patient displays acute symptoms; supervening in the course of fever, it is originated and ministered to by unhealthy blood, and shows only asthenic symptoms. The treatment of these two inflammations, the first common, the second specific, will be as different as is their nature.

Pneumonia may occur from local irritation (heat, cold, dust, gases, &c.) in a patient in robust health, with pure blood and no particular diathesis. It may equally take place in a person whose blood is impoverished or in a state of greater impurity; or in another of gouty, rheumatic, scrofulous, or tubercular diathesis. It may also happen to any one who combines any two or more of these unfavourable conditions. In the first case it will be *common*. In any other it will manifest *specific* qualities.

1 The Co-existence of two Species of Inflammation, with especial reference to the forms of Pneumonia. By William Addison, M.D., F.R.S. London: J. Churchill & Sons. 1868.

It is obvious that these considerations are of the utmost practical importance in respect to treatment. Dr. Addison's pamphlet will be read with much interest. It concludes thus:—

"Both species of inflammation are characterised by *new embryoniform cell growths in the blood-vessel tissue.* The distinction seems to be, that the *cells* of common inflammation are amenable to the ordinary law of growth, susceptible of metamorphosis into the tissue from which they arise; whereas the *cells* of specific inflammation, contaminated by impurity of blood, are deficient in, or have lost these properties; they *are all of them* deciduous, and therefore tend to protract or perpetuate a local sore, or common inflammation. If blood be in an unhealthy state, *specific inflammation* may co-exist with *common inflammation.*"

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 8, 1868.

REVISION OF THE MEDICAL CURRICULUM.

MR. WALTER RIVINGTON, of the London Hospital, has brought before the lately organised Medical Teachers' Association a well-considered plan for the revision of the medical curriculum, to which we invite attention. That we are on the eve of some considerable changes, may well be credited by those who, like ourselves, have had patiently to weigh the various schemes and conflicting opinions that have been recently promulgated. On the other hand, the natural *vis inertiæ* of corporate bodies may be looked upon as likely to prolong the *status quo* for a considerable period. Will this new Teachers' Association be able to stir any of the corporations? If not, there would seem little to hope for.

Sympathizing as fully as any with the grievances of both students and practitioners, we are ever ready to listen to those who think they see a mode of removing some of them, and are, therefore, glad to bespeak for Mr. RIVINGTON a hearing. He comes forward with a resolution to the effect that the curriculum needs revision. In support of this, he urges the many lectures the student is required to attend, and, by an elaborate calculation, attempts to show the impossibility of all the requirements being fulfilled. He takes the first 18 months, deducts the vacations, leaving only 15 months, and finds the student's work, as laid down by the regulations for that time, to amount to 468 days, of 8 hours' work in each. Yet, deducting Sundays, and 12 days for Christmas recess, there are only 379 days in this time, so that the work of 89 non-existing days must be crammed into the already full occupation of the others. No one will be disposed to deny that this is too much for the average student, although there are many who pass through the curriculum with ease, and add to it other favourite pursuits. Of course they neglect something, or if diligent, may feel their knowledge of some subjects sufficient to excuse their attention to it. This brings us to the remedy.

Mr. RIVINGTON would remove botany and elementary chemistry from the course, and make them preliminary studies. These and comparative anatomy he would like to see taught—not at the several schools, but at some central institution like the College of Surgeons—though we should think the Apothecaries' Company more likely to possess all the appliances for botanical and chemical instruction. Then, he would not have *compulsory* attendance on more than one course of any subject.

Here, we apprehend, is the pith of the whole matter. Compulsion has been so long in vogue that it is no easy task to persuade men to credit the possibility of students delighting in their work.

The beaten track must be followed, or character may be lost. True diligence does not consist in bodily presence in the lecture-room, and we hold that more freedom could do no harm. Let instruction be practicable and students will avail themselves of such as they stand in need of, and ought not to be compelled to run in the ruts made by their predecessors. We know a case in point which will show the impropriety of too rigid adherence to rule.

A young man fortunate in his choice of a master was apprenticed as required by the Apothecaries' Society. The practice was elegant, the leisure abundant, the master kind, the pupil diligent and anxious to get on. He had a small laboratory at his disposal, which the master always kept supplied for his pupil's benefit. He had also a very good museum of materia medica and botanical specimens, as well as an unusual assortment of electrical, optical, and philosophical apparatus. Most of the winter evenings were passed by master and apprentice in practical experimentation. What was the result? On passing to the hospital the pupil, who had matriculated during his apprenticeship, found he could gain little instruction from the lectures on botany, materia medica, and inorganic chemistry. These he accordingly systematically shirked—and with this consequence. He was a marked man. He was believed by some of the professors to be idle; and by dint only of great perseverance did he obtain their signatures to his schedules. They did at length sign on the representations of the physicians and surgeons as to diligence in the wards, and within a few weeks our student was a full-fledged general practitioner, college and hall having tested and approved him. A short time after he graduated and proceeded, to the astonishment of some of his fellow-students, to take other honours. They thought him negligent, but he worked hard all the time, and though he omitted lectures on subjects with which he was previously thoroughly acquainted by practical instruction of the best kind, he bestowed on other branches the labour he must otherwise have devoted to them.

What is the moral of all this? should it not teach us the folly of attempting to regulate to a nicety the curriculum which *every* student must follow. Would it not have been a farce to have refused this man the right to be examined, because he had not wasted precious hours in listening to lectures he did not need? We may strive to impart uniformity, but we shall fail, and therefore we raise our voice in favour of a moderate degree of liberty for the student. Let each learn, at least, the theoretical subjects as he will. The examination should be the sufficient test of them.

Yet we are scarcely prepared to endorse all Mr. RIVING-

TON'S conclusions. We should be glad enough for comparative anatomy, for instance, to be taught at the College of Surgeons, and botany, pharmacy, &c., at Apothecaries' Hall. But then the going to and fro would be a source of distraction and loss of time. We know no reason why every school should not teach every branch. It is a question of the mode of tuition. A large class is wanted for a lecture, but a teacher may impart instruction without set lectures. We have taught chemistry and physiology to a single pupil with a success that enabled him to shine, and have had other experience in tuition which makes us think that a large class is not necessary for the subjects proposed. By all means let us have large classes at central institutions, and eventually these may quite supersede the many classes which, in the language of the day, cause so much waste of teaching power. Yet we think each college should be perfect in itself, and offer to those, who wish it, complete tuition in all departments.

A step in the direction desired by Mr. RIVINGTON would be gained by letting students enter for classes and practice at several hospitals. They would find a popular lecturer of any subject at one or other, and the rivalry might act favourably on teachers. There is much to be said, too, in favour of their seeing the practice of different hospitals. The chief point against it is the distraction and loss of time that would occur, and habits of restlessness that might be engendered in the less staid pupils. So many other points press upon us, that we must defer them.

In the meantime, we plead for more liberty and less regulation for students.

MATERIALISM IN THE PARIS FACULTY.

WHATEVER may be the private convictions or opinions of medical men or teachers in this country, we are glad to say that they do not lead to anything like the scandal that has lately occupied the Paris press. We have our so-called godless colleges, our strictly sectarian institutions of all kinds, and yet, practically, we have harmony as well as liberty. Then we have our numerous hospitals, large and small; some slightly endowed, but the majority entirely supported by voluntary contributions. In the wards of these noble charities the services of our profession are freely rendered without fee or reward. In very few is a candidate's orthodoxy allowed to be a test for his fitness for election on the staff, and, consequently, men of every shade of doctrine may be met with amongst our hospital physicians and surgeons. High Church, Low Church, Broad Church, no Church, Romanist, Protestant, Dissenters of every kind, Jews, foreigners of various nations and creeds, are free to join in hospital work. Yet we never hear of attempts at proselytism. The physician or surgeon interfering with the religion of his patients is unknown among us, and rightly so too. For if once our office were to be suspected of this, it would at once be degraded from the lofty platform of true catholicity it has so long occupied. "They manage these things *differently* in France." It appears that numerously signed petitions have been presented to the Senate complaining of the "mode of teaching followed by certain of the Faculties." In the report upon these petitions it is stated that one of the Professors of the Faculty of Medicine taught that "nerve substance had thought as a property, that on life ceasing man found no second, better life, that matter was the God of Science, and that if man possess a soul so does the ape." Another Professor is accused of making Malthus a text for teaching immorality; another of openly advocating materialism; and a physician is said to have ridiculed a poor woman in the hospital for wearing the figure of the Virgin. The petitioners urge that atheists ought not to have a monopoly of teaching in any department, but that students should have the opportunity of selecting other masters. The Senate is to discuss the subject after Easter. The interval will probably develop public opinion on the subject, and we are much mistaken if France does not pronounce some such view as that we have already hinted as our own.

It will not be forgotten that these professors and physicians are both paid by the State, so that the interference of tax-payers may not seem so strange as it otherwise would. We believe, however, that the subscribers to our hospitals would soon find means of expressing their views were any such conduct possible amongst our physicians who are unpaid, as that alleged against some of the Paris Faculty. In commenting upon the matter, *La Presse* says :—

"When a physician paid by the State to attend to the sick in hospital, instead of doing so with the care which their physical and moral sufferings require, sneers at and outrages their religious belief, he seriously fails in his duty; and if the administrators of the hospital do not remind him of it, the interposition of the Senate is properly called for. Whether the patient be Catholic, Protestant, or Jew, his religious opinions should be sacred to the physician who attends him; and the physician acts most improperly in adding to the physical sufferings of the patient the moral torture of the profanation of his faith."

This opinion will find an echo far and wide. The writer does not deny the right of the physician to his own opinion; he sets up no standard of orthodoxy as a qualification for office; he does not even indulge in any inuendoes against those who have suffered theology and metaphysics to blind them to the one subject to which the physician's life should be devoted—sickness, and how to alleviate or remove it. There is no wish, as has been rather unfairly represented in some quarters, to subject the materialists to any pains or penalties, to dismiss Professors who doubt the divinity of Christ, or to give to Catholics liberty of speech and deny the right of reply to others. None of these things are proposed, and assuredly none of them would we support. We have no fear of discussion. In its proper place the more the better. Truth cannot be worthily held by forbidding those who do not embrace it to express their doubts. That religion can be worth little which need fear the opposition of reason. But admitting all this, we cannot join in the taunts of the *Opinion Nationale*, which condemns the petitioners in no measured terms, and seems to think the conduct alleged justifiable.

Liberty full and equal by all means. Discussion public and open none need fear; but we cannot conceal from ourselves that to call the jeers attributed to the physician in question debate is a misnomer. It is absurd to talk of a poor woman ill in bed in hospital, entering into argument with her doctor, and we can only express our surprise that the latter should have given ground for this accusation. We trust his conduct has been grossly exaggerated; for to step out of his way to convict a poor patient like this of superstition, is to add to suffering instead of to relieve it. It is consequently a scandal which the Profession everywhere must lament, for it tends to diminish confidence in the true charity that has ever characterised our services. We hope, therefore, to hear that the charge of having committed such an outrage may even yet be disproved.

We have confined our observations strictly to the question as it affects the Profession morally and socially. Whether the State should exercise control in such cases, or remain indifferent, does not affect the points we have named, while this aspect of the question would lead us into a region of politics which is not appropriate to a medical journal.

THE ROYAL VISIT TO THE COLLEGE OF SURGEONS IN IRELAND.

THE approaching visit of their Royal Highnesses the Prince and Princess of Wales to Dublin, with all the political significance which state pageantry can confer upon it, will be a "red letter" epoch in the memory of the people of Ireland, and for all reasons a most appropriate opportunity for bringing home to the recollection of the Irish the well-nigh forgotten state and dignity of the Royal presence. Whether as an assertion of the supremacy of the crown, following close upon the successful vindication of the majesty of the law against its assailants, or as an exchange of hospitality and greeting between the heir-apparent and Her Majesty's Irish subjects, the occasion is well chosen, and the advent of the Prince well-timed. It is fitting that in the interchange of loyalty and good feeling, the medical profession of Ireland should not be oblivious of its duty, nor the Prince unmindful of the uniform loyalty of its members, and it is with pleasure, therefore, that we make public the following letter in response to the invitation of the Council of the Royal College of Surgeons in Ireland :—

MARLBOROGH HOUSE, PALL-MALL, S.W.,
24th March, 1868.

SIR,—I beg to acknowledge the receipt of your letter of the 21st inst., and having laid it before the Prince of Wales, I am directed by His Royal Highness to assure you that it will afford him great satisfaction to be enabled to visit the Royal College of Surgeons, during the period of his stay at Dublin.—I have the honour to be, Sir, your most obedient servant,

W. T. KNOLLYS.

Robert Adams, Esq.,
President of the Royal College of Surgeons.

The advisers of His Royal Highness will hardly need the suggestion which we venture to offer, that the presence of the Prince of Wales in Ireland, and within the Hall of the Royal College of Surgeons, may fittingly be signalized by an act of special grace and honour to the surgical profession in Ireland.

Mr. Adams, the surgeon-in-ordinary to Her Majesty the Queen in Ireland, elect Regius Professor of Surgery in the University of Dublin, and President of the Royal College of Surgeons, is already, in the opinion and by the common voice of the profession, declared worthy of the highest distinction which might be conferred by Her Majesty, and no course more gracious, more dignified, or more completely in accord with the feeling of the profession could be adopted by His Royal Highness than the placing in the hands of the learned President of the College of a patent of baronetcy. Mr. Adams is exclusively identified with no party, and thus on his elevation to the dignity which he so well deserves could incur the envy of no class. Admittedly the father of Surgery in Ireland, he is at once a writer of the highest repute and a medical politician of the most unsullied character, and in this, his third occupancy of the presidential chair, he has commanded and received the entire confidence of the college over which he has reigned.

These are qualifications in themselves worthy of the same recognition from the throne which has been dealt out with no niggardly hand to the profession in England and Scotland. Beside Sir William Lawrence, Sir Thomas Watson, Sir William Fergusson, Sir James Simpson and Sir William Jemmer, there is no man in Ireland so well entitled to stand as Mr. Adams, and we earnestly believe that, if the advisers of Her Majesty will consent to accept the suggestion we have ventured to offer, they will act upon the verdict of the entire profession which we have endeavoured truthfully to express.

Notes on Current Topics.

The Public Health.

THE mortality returns continue to be favourable. The annual rate for the large towns in the last return was 25 per 1000. It was in the different parts of the kingdom as follows:—22 per 1000 in London, 31 in Edinburgh, and 29 in Dublin; 32 in Bristol, 23 in Birmingham, 27 in Liverpool, 27 in Manchester, 27 in Salford, 25 in Sheffield, 23 in Leeds, 24 in Hull, 27 in Newcastle-upon-Tyne, and 29 in Glasgow.

There were 1320 deaths registered during the week in London, being 316 less than the average number, which is 1636 for that week.

The deaths from zymotic diseases were 252, the corrected average number being 341. Twenty-two deaths from small-pox, 39 from measles, 23 from scarlatina, 7 from diphtheria, 52 from whooping-cough, 33 from fever, and 14 from diarrhœa were registered.

One hundred and seventy-two deaths occurred from phthisis, 153 from bronchitis, 70 from pneumonia, and 69 from diseases of the heart.

We have now had a long series of favourable returns, and we trust that they may continue.

Poor-law Reform.

LORD DEVON'S Bill, now referred to a Committee of the House of Lords, is not likely to excite enthusiasm in any one. It contents itself with patching and tinkering the system which has been proved to be insufficient, and makes no attempt at anything that is entitled to the name reform. It offers, indeed, a few regulations on minor points, which may remedy some of the abuses, but it does not deal with the subject in a broad or a statesmanlike manner. It is therefore weak, if not worthless.

The measure of the proposals may be judged by one of the provisions. Facilities are to be given for religious advice or instruction to the paupers of all persuasions. This is well as far as it goes ; but who has said that spiritual destitution is the grievance of the poor ?

They have been proved to want medical comforts. Medical inspectors would be a simple and certain remedy for many of their distresses. The want is more doctors ; the government offer more parsons. Adequate medical inspection is the one necessity ; clerical supervision is the government prescription. The cry is for food and physic ; the answer is the offer of religious teaching. The pauper asks for bread ; the country is advised to give a stone. The child prays for a fish ; the paternal authorities are about to present a serpent.

Prison Pains and Penalties.

A PRISON in a civilised and christian community is a sad necessity, and proves oftentimes a fearful infliction on the one who least deserves it. Two months' imprisonment with hard labour, not a very heavy sentence, may, it seems, end in the death of a man. It ought not to be so; nevertheless it has been of late in more instances than one. Several strange disclosures were made at an inquest held by Mr. Humphreys last week, on the body of Edward Barrett, 18 years of age, who died, it was stated, from ill usage in prison. According to the evidence he was comparatively well last Christmas, but when he came out of prison after two months' confinement, he was "very ill indeed" and "so weak that he had to lean on his sister's arm very heavily," to get along. He said he was half-starved, and unable to do the work on the wheel. He came down and complained to the doctor, but was put on bread and water for not doing the work, and had been five days out of seven on that diet. Though every kind of nourishment was given him since he came out, he could not work, and was found dead on the Thursday preceding the inquest. Mr. G. B. Phillips, the police-surgeon, said the post-mortem examination showed that death resulted from an infusion of blood into the lungs—that there were tubercles in the lungs—that the body was anæmic and emaciated; that the deceased had probably been consumptive for two years; that it must have been apparent for months past, and that he was unfit to work on the tread-mill. Three or four other men who had been imprisoned gave similar testimony as to the diet and treatment in prison. One of the witnesses said the men were on the wheel from half-past six in the morning till five at night; a quarter of an hour on and a quarter off. At eight o'clock they get one pint of gruel and six ounces of bread; the same for dinner on Mondays, Thursdays and Fridays. On Tuesdays and Saturdays the dinner is eight ounces of potatoes, four of meat, and six of bread. On Sunday the dinner is one pint of soup and six ounces of bread. For supper, at five o'clock, they get half a-pint of gruel and six ounces of bread. The same witness says, when I complained of illness, and saw the doctor, he ordered me the bread and water. At least, he does it in this way—he says "Go on; there is nothing the matter with you," and the warder puts that in a book, and you go up before the governor, who says, "Coming off the wheel without cause. Two days' bread and water." "He only examines you by looking at you." It was proved that at least one other had died, and four or five were rendered so ill that they were obliged to apply to different hospitals for relief.

Such a state of things certainly reflects great discredit on our prison authorities. What kind of care for the proper management of things has here been disclosed? If a man is guilty of death let his life be taken in the most summary and least painful manner—so humanity dictates. But justice dictates as well, that if his crime is of inferior quality, which a few weeks' deprivation of his liberty is sufficient to atone, he ought not to be exposed during those weeks to torture and deprivation which will inevitably entail a miserable death. The jury returned a verdict in accordance to the facts, and it is to be hoped that the communication of the coroner to the authorities will have due effect.

Tasmania and its Climate.

THE visit of His Royal Highness the Duke of Edinburgh to the Australian Colonies has directed general attention to that portion of Her Majesty's dominions. One of the most beautiful and remarkable as regards scenery and climate, according to the accounts which have been given of it, is Tasmania. Some time ago it attracted the attention of Colonel Crawford, late Assistant-Adjutant General of Her Majesty's Bombay Army, who thought it every way adapted as a residence for retiring Indian officers. He is himself now residing there, and through his efforts an act has been passed by which fifty thousand acres of land on the north coast have been reserved for this object. A large number of Indian officers will, it is expected, avail themselves of the advantages thus offered; and will, no doubt, reap the benefit of their choice in the possession of land, with a far lower rate of living than they could find in England, as well as a lovely and healthful climate. Tasmania is situated between 40 and 43 degrees south latitude, and its western shore is washed by the Indian ocean. It abounds in mountains and woodlands, in well-watered dales and fine open downs. It has been thought to equal some of the loveliest parts of Europe, and has been called the "Queen of the South." Its temperature is remarkably equable. From twenty-five years meteorological observations in Hobart Town, it is found that the mean annual temperature in that city is 54 deg., 41 min. The yearly range being from 46·85 in winter, to 61·95 in summer, so that the variation is only 15·10 deg. between the coldest and the hottest parts of the year. These figures show a climate with no extremes of heat and cold—with a "winter mean temperature of Pau" in the south of France, and "a summer temperature of Bushy Heath, near London." It is free from marsh miasma, while neither intermittent nor remittent fevers occur there. No more favourable spot, we imagine, could be selected by those who seek retirement after having spent years of exposure under a tropical sun; nor can those who think of emigrating from the United Kingdom make choice, according to all accounts, of a better distinction.

St. Andrews Medical Graduates' Association.

THE General Session of the Association will be held at the rooms of the Medical Society of London this evening (April 8th), at eight P.M.

With so many subjects demanding the immediate consideration of the Association at this particular time, and having reference to the present political situation, the Council has thought it proper to defer the special debate on the Medico-legal Bearings of Insanity, which we lately announced, to a subsequent session.

We hear that the number of new members to be balloted for is ninety-three, and that probably the first volume of the transactions will be ready for distribution at the meeting.

We should also announce that after the usual business, and the report on Parliamentary matters, there will be a communication from Mr. Glaisher, F.R.S., on a scheme for mutual co-operation in medical meteorology. The President is then to propose a plan for the systematic registration of disease in the United Kingdom.

Indiscriminate Living.

FROM the report of Dr. French, the Medical Officer of Health, which has just been issued, we select the following

particulars, showing the sad state of things resulting from over-crowding among the poorer classes :—In 62 instances adult sons and daughters slept in the same room with their parents, and in three instances in the same bed. In 152 instances adult daughters slept in the same room, and in 56 instances in the same bed, with their parents. In 99 cases adult sons slept in the same room, and in 37 cases in the same bed, with their parents. In 214 instances adult sons slept in the same room, and in 158 instances in the same bed, with their mothers. In 37 instances adult daughters slept in the same room, and in 27 instances in the same bed, with their fathers. In 59 cases the mother, with her adult sons and daughters, slept in the same room, and in 21 instances in the same bed together. In 12 instances the father, with his adult sons and daughters, slept in the same room, and in 6 instances in the same bed. In 7 instances a mother, adult son, and a female lodger slept in the same room, and in two instances in the same bed. In 64 cases a man, his wife, and a female lodger slept in the same room, and in three instances in the same bed. In 12 cases a man, wife, and male lodger slept in the same room. In 39 cases adult brothers and sisters slept in the same room, and in 20 cases in the same bed. Such unnatural association must have a most debasing influence upon the moral and social feelings of those who are compelled to submit to it. Great difficulty may be found in applying a remedy ; but surely some attempt should be made, more than hitherto has been, to provide suitable dwellings for the working classes in our cities and large towns. This is important, not only in a social and moral, but equally in a sanatory point of view. The deaths registered in Liverpool during the year were 14,513 ; the death-rate of the town was 29·4 per 1000 of population, being 3 per 1000 less than the average rate of the previous ten years. The deaths from typhus in each of the six years 1862-67 were 730, 1304, 1774, 2338, 1523, and 656 respectively. The proportion of epidemic and contagious diseases to the total deaths in 1867 was less than that of any year since 1861, being 24·8 per cent.; in 1866 it was 38·2 per cent.

Prison Diet.

A Bluebook has lately been published containing the report of the Committee appointed by the Lord Lieutenant, to investigate the dietaries of county and borough gaols in Ireland. The inquiry was an extended one, and comprised various particulars, such as the present dietary in prisons, that of labourers, artisans, and small farmers in the country ; and a comparison of these with the dietary used in workhouses. The result was that the Committee came to an unanimous decision with regard to the different classes of prisoners and pauper debtors. "The introduction of potatoes into the dietary is strongly recommended, as well as of vegetable soup made (as at the Westmeath Gaol) of oatmeal, onions, carrots, and turnips. In most of the prisons visited the quality of bread, meal, and milk appears to have been excellent. In many places the duty of inspecting and reporting on the food devolves upon the chaplains, and the Committee recommend, as a modification, that a daily inspection of the food should be made by the governor or surgeon, or both ; that the importance of providing good milk cannot be too strongly insisted on ; and that all prisons should be provided with a cream tube and a lactometer. It is also recommended that the bread should be made with whole wheaten meal, or with equal parts of whole meal and seconds flour ; that the meal for breakfast "stirabouts" should be oatmeal, or oatmeal and Indian meal in equal proportions, and that the use of simple gruel should be discontinued, because its nutritive value is of the lowest character."

The Volunteer Medical Service.

A meeting of medical officers of Volunteers was held at the Grosvenor Hotel on Tuesday, 31st March—Mr. Spencer Smith in the chair. Between thirty and forty members were present, and letters had been received from all parts of the country expressing sympathy with the movement. The object was to form an association to obtain for the service a recognition of the position to which it is entitled. Volunteer medical officers desire to render their organization effective, and are not content to be subordinated to their brethren of the regular army. Resolutions were adopted embodying these views, and a subcommittee was formed to carry them out, care being taken that everything was done in regular form through the constituted authorities. Considering that the War Office has invariably to fall back upon the civil branch of the profession in time of need, it would appear probable that it will welcome this desire on the part of Volunteer surgeons to complete their organization. The large reviews, and Wimbledon, afford valuable opportunities of testing its efficiency.

The Irish Branch of the Medico-Political Association.

Dr. Robert McDonnell, F.R.S., has accepted the office of Chairman of the Irish Branch of the Medico-Political Association.

Dr. McDonnell's enlarged and liberal views on matters of medical politics, as well as high scientific reputation, point him out as eminently fitted to become the leader of a movement, the object of which is to give potential expression to the wishes and wants of the members of the profession at large by means of their special representation on the Medical Council, and we congratulate the Association on the acquisition of so influential a name for the chairmanship of its Irish branch. We should consider the profession in Ireland fortunate if it could send Dr. McDonnell to the council as the exponent of its sentiments.

Drs. Charles D. Purdon and William Mac Cormac, of Belfast ; Dr. Michael Brodie, President of the Limerick Medical Protection Society, and Dr. Denis J. Hynes, Vice-President of the Irish Medical Association, have also accepted office as Vice-Chairmen of the Association. Their names will add much weight to this important movement.

Purpuric Fever at Shorncliffe Camp.

The 12th Depôt Battalion has lost two men and has two more ill from cerebro-spinal meningitis, attended with the pathognomic purple petechiæ. The cause of the outbreak is traced to the unsatisfactory sanitary condition of the huts, in one of which three of the cases occurred, and orders have been issued for the immediate inspection of the neighbouring huts, and the remedy of the objectionable hygienic conditions.

Technical Education.

We have great pleasure in recording a munificence that may well be compared with that of Mr. Peabody. Mr. Whitworth has offered to found 30 scholarships of the

annual value of £100 each, to be applied to the further instruction of young men, natives of England, Ireland or Scotland, selected by open competition for their intelligence and proficiency in the theory and practice of mechanics and its cognate sciences, with a view to the promotion of engineering and mechanical industry. The offer was made to the Prime Minister, and has been accepted with an expression of hearty thanks by the committee of council on education. Supplemented as it is hoped this gift may by others, from such as may be inclined to follow the splendid example, this fund may be a source of great benefit to the country, and we join in the wishes so generally expressed that Mr. Whitworth may live to see the beginning of valuable results accruing to the country from his large and generous patriotism.

A Naval Netley.

THE Greenwich Hospital Commission which will shortly be in the hands of Parliament contains, we understand, a strong recommendation that a school for the special instruction and training of naval assistant-surgeons, shall be established at Greenwich on the same plan as the Netley Hospital School. We find a difficulty in recognizing any special department of professional information which would justify the large expenditure which this suggestion would entail. The subjects which are not common to both military and naval medicine are very few and could, we believe, be efficiently provided for by an extra professor at Netley.

A Competitor for Chloroform.

THE use of nitrous oxide gas, which has been for some time on its trial in America, has been, last week, introduced into London practice at the Dental Hospital by Dr. Evans of Paris, who, in a series of practical demonstrations,has made a very decided impression on the minds of those gentlemen who had an opportunity of observing the results. On consecutive days the induction of anæsthesia by the inhalation of the gas was tried, and so far, with complete success. The peculiar characteristics of the anæsthesia are the remarkable rapidity with which it ensues and disappears. The patient holds the mouthpiece of the inhaler between his lips, and his nostrils are closed. After a few inspirations the heart's action becomes increased in force and frequency ; in twenty or thirty seconds the insensibility is complete, and within about half a minute more the patient is so far restored as to be able to walk. The whole period from the first inhalation until restoration, varied from three-quarters to two minutes, and in no case was pain experienced. Pallor and lividity of the face, which are such serious indications in chloroform administration, are common under the use of nitrous oxide, and in some cases apparent respiration and pulsation ceased, but without any ill result. The observed effect of the gas would appear to prove that its use is suitable only to rapid operations, and that prolonged anæsthesia could not safely be effected by it.

Death of Professor Pirogoff.

A MOST untoward and extraordinary fatality has deprived the profession of one of its brightest ornaments, in the death of Professor Pirogoff, whose name has been immortalised in the amputation at the ankle-joint known by his name. In the discharge of his professional duties while returning from attendance on a patient near Odessa, he was attacked by a gang of footpads. By a most gallant contest, in which he slew two of his antagonists, he escaped the violence and robbery which was intended, and ran to his house, but the excitement was too much for him, and culminated in an attack of cerebral congestion, of which he shortly died. The deep regret with which this melancholy intelligence has been received is increased by the circumstances under which European surgery has lost one of her most talented representatives.

The Rationale of Rowing.

THE victory of the Oxford crew in their eighth contest for oarsman's blue ribbon, was so much a matter of course that no one has thought of inquiring the reason why for eight years the entire strength of the athletes of Cambridge has failed in the competition. That it was not altogether a failure of skill, is shown by the evident hesitation of connoiseurs to declare on the preliminary trials of the crews, the superiority of one or other, while the odds against Cambridge were not at all higher than the previous repeated victories of Oxford would justify. There can be no reason why the Cambridge boat should be heavier, or its picked crew of inferior metal to their antagonists. By these considerations we are driven to the conclusion that there must be a fundamental defect in the training of the Cambridge men, and that if we were in possession of the details of each system, we would find a good reason for the superiority of Oxford. May not the Cambridge crew be either under or over-trained—their "spurts" too short or their rate too slow. We can easily comprehend that rowing exercise should be supplementalized by vigorous walking, and that the fault may be in the cultivation of the muscular development of the back and upper extremity, and the neglect of the thigh and leg muscles, which play an important part in the use of the oar.

The Professorship of Hygiene in the Royal College of Surgeons of Ireland.

THE election of a Professor to the chair vacated by Dr. Mapother will take place in accordance with the bye-laws on to-morrow (Thursday), and for that purpose the Council has been summoned to attend. Four candidates have submitted their qualifications to the consideration of the Council—Dr. C. F. Moore, one of the Physicians to the Cork-street Fever Hospital, lately appointed an Inspector under the Merchant Shipping Act ; Dr. Little, Physician to the Adelaide Hospital ; Dr. D. B. Hewitt, Physician to the City of Dublin Hospital, and Demonstrator of Anatomy in the School of the College ; and Dr. Cameron, Lecturer on Chemistry in the Ledwich and Steevens' Schools, and Analyst to the City of Dublin.

The Professorship of Hygiene is a purely honorary position, no emolument attaching to it except the fees for certificates, which, as attendance on the lectures is not required by any examining board, are seldom required. The course has been always, under the able teaching of Dr. Mapother, a popular one, and largely attended by extra-professional persons. In anticipation of the election, the Council, feeling that the Professor should not be called upon to provide the essential accessories for lectures from which he receives no pecuniary return, have on the motion of Dr. Mapother, voted a sum of £20 for this year, for the purchase of diagrams and apparatus which shall be the property of the college, and available for the use of

future professors, and have by the same resolution decided that the course shall consist of twelve lectures, which shall be delivered in the College between the months of May and June.

Although no direct remuneration is derived from the professoriate, it is a position which affords a valuable opportunity for the cultivation of a science to which of late years much public attention has been directed, and the position of Professor of Hygiene in the Royal College of Surgeons could not fail to recommend its occupant to favourable consideration, whenever special qualification in this direction was a requirement.

We learn that the Board of Trinity College, Dublin, have arrived at the determination of creating a Regius Professorship of Surgery on a similar footing as the Regius Professorship of Medicine now held by Dr. Stokes. The existence of a University Professor of Surgery hitherto has been somewhat of an anomaly, as by Act of Parliament Dr. McDowell is University Professor of "Anatomy and Chirurgery." For this change the permission of Her Majesty the Queen will be required, and it is proposed to petition Her Majesty to appoint Mr. Adams, the President of the Royal College of Surgeons as the first Regius Professor.

Proceedings of Societies.

SURGICAL SOCIETY OF IRELAND.

March 13, 1868.

Mr. Porter, Vice-President of the College, in the Chair.

Members of the Society present:—Messrs. Fleming, Jameson, Cronyn, Eustace, M. Eustace, H. Kennedy, W. Moore, R. H. Moore, C. Moore, Kirkpatrick, White, Martin, Collis, Purcell, Elliott, H. G. Crotty, Baker, Wilson, Stronge, Roe, Coulter, Willis, Geoghegan, O'Leary, Grimshaw, Guiness, Clerke, Nugent, Mapother, Wharton, Morgan, Hewitt, Purser, R. M'Donnell, Jacob, Owens, F. Kirkpatrick. Telford, Morrogh. Ferguson, Crotty, E. Hamilton, Swan, Usher, O'Grady, J. Benson, Sibthorpe, Brady, F. T. Porter, Barker, Minchin, Tyrrell, Benson, Honorary Secretary.

PEMPHIGUS GANGRENOSUS.

Dr. J. Morgan exhibited a specimen of this disease, taken from the body of a girl of eighteen, who was admitted to Mercer's Hospital on the 26th of last month. She had been well up to three weeks previously, and the characteristic bullæ began to appear on various parts of the body. There were two on one buttock, and one on the other; there was one on the abdomen, and one on the thigh, of which he took the cast now on the table. There was a slough on the lower lip; a slough on the outside, and one inside, eating down into the gum. The girl came into hospital on the 26th with these well marked characteristic sloughs. She died on the next day, and he removed the preparation, and put it up in the solution in the bottle on the table. One of his reasons for showing it, was to point out the efficiency of the solution. Previously to the girl's death he used the solution, and he thought, with much benefit. It certainly corrected the fœter to a considerable extent. This solution was made with sulphite of lime.

RECTO-BULBAR ABSCESS AND HYPOSPADIAS.

Dr. Mapother presented pathological specimens, removed from the body of a man, aged 65, who died last Sunday in St. Vincent's Hospital. He was admitted, fourteen days before, for a sloughing abscess in the recto-bulbar space, the skin covering it having already given way. Around this opening there was great hardening, especially towards the rectum, reminding one of the "phyma" of Pott; but there was no gangrenous emphysema. The opening, as you will perceive, was about 1½ inches by ¾, and led back to a cavity about 2 inches deep in the left ischio-rectal fossa, the areolo-adipose tissue of which had sloughed out. There was no evidence of urethral perforation, for no urine escaped, as he passed it along that canal without difficulty in a natural stream. He said he had had stricture, but that the dilatation treatment employed many years ago had relieved him, and a No. 6 catheter passed readily into the bladder. The abscess appeared to me to be behind the turning of Colles' middle perineal fascia, to join the triangular ligament, and as the urethra never gives way behind this situation, I did not look on the abscess as the result of urinary infiltration. The urine was albuminous, the skin anæmic, and the legs œdematous, from which we concluded that he suffered from Bright's disease. That malady, together with the sloughing abscess, proved fatal, death being preceded by typhoid delirium, and finally coma. The absence of infiltration or of tension, the patency of the urethra, the cessation of sloughing, and the largeness of the opening indicated that incisions were uncalled for, and the treatment consisted in warm dressing locally, and bark and ammonia, wine and nourishment internally. The kidneys were found in a state of complete fatty degeneration, the bladder slightly fasciculated, and the urethra somewhat narrowed at the junction of the membranous and bulbous portions. There is here a small depression bounded by frœnicula, but no opening whatever. This part of the canal, as well as the prostatic sinuses are reddened. The sloughing abscess having been completely limited by the division of the pelvic fascia into its anal and obturator layers, produced no peritoneal or retro-peritoneal inflammation. The penis presents a good specimen of hypospadias; a *cul de sac*, about three lines deep, occupies the position, and follows the shape of the meatus, and the urethra opens about three-quarters of an inch behind this by a transverse valve-like slit.

HÆMATEMESIS FROM EMPHYSEMA.

Dr. Hewitt said—The man from whom the preparations before them were taken, was admitted into the City of Dublin Hospital on the 1st or 2nd of February, labouring under symptoms of chronic bronchitis with emphysema, and accompanied by anasarca of the lower extremities, which was due to cardiac obstruction, the urine being free from albumen or tube casts, and the kidneys were subsequently found to be quite free from disease. The chest everywhere exhibited extreme clearness upon percussion, and there were all the usual symptoms of chronic bronchitis with emphysema. There was extreme cyanosis and great viscidity of the expectoration, which was muco-purulent and sometimes nummular. He first treated him on Dr. Stokes' plan, of giving stimulants along with tartar emetic. Under this treatment, his natural colour almost entirely returned, and he became so much better that he left hospital in order to have a short spree. His son came for him, saying that some friends had come up from the country, and they wanted him to spend an evening with them. In a week he came back to hospital. He then exhibited more intense dropsy than ever. It now appeared in the upper extremities, in the face, and also in the peritoneal cavity. In turning him from side to side the fluid gravitated to the dependent portion. On examining the abdomen it was impossible from the extreme fullness to detect the edges of the liver. The usual dulness due to the liver was obscured above by the emphysematous lung, and below by the inflated intestines. On placing the stethoscope over that portion of the right side usually occupied by the liver both in the median and in the axillary lines, sibilant and crepitant rales were heard as low as the tenth rib. Posteriorly for a short distance they could detect hepatic dulness, which gradually passed into the dulness due to the kidney. He examined the urine several times, but found not a trace of albumen, and the deposit when examined under the microscope was perfectly free from any casts. They were therefore thrown back on the heart, and perhaps the liver, to explain the dropsy, and he considered it likely that the patient might have cirrhosis of the liver, although it was impossible from the state of the lung and the condition of the abdomen, to arrive at any positive diagnosis, and subsequently he was suddenly attacked with hæmatemesis, when a large quantity of dark blood, having a sour smell and acid reaction, mixed with the contents of the stomach. The treatment adopted was the use of ice, tannic acid, turpentine, whiskey, and beef-tea, the latter being given by enema in consequence of the vomiting. This treatment was not, however, attended with success, and at last he died. On making a post-mortem examination he found the liver did not exhibit any signs of cirrhosis. It was rather larger than normal, and a large quantity of dark clotted blood drained out from the venæ cavæ hepaticæ. On opening the cavity of the thorax they found the heart covered over by the left lung,

which was very much enlarged and remarkably emphysematous. On the edges of the lung large vesicles were seen. He dissected the pleura off very carefully, and found the vesicles were not sub-pleural, but well-marked examples of the result of Laennec's emphysema. The internal surface of the bronchial tubes were found to be intensely congested. In more than one place in the base of the lung portions were found to exhibit that form of solidification due to pulmonary collapse. They found, on examining the heart, the right ventricle was considerably dilated and hypertrophied, as they might have expected, and showing the slow process of death. There was a large fibrinous clot passing up into the pulmonary artery, and also passing back into the right auricle. The musculi papillares were enlarged. There was some thickening of the wall of the left ventricle, and a thickened and roughened condition of the mitral valve. The internal surface of the stomach exhibited a state of intense congestion, but although carefully searched for, no ulcer or abrasion could be detected. It contained a large quantity of dark blood, altered by contact with the gastric juice, as did also the intestines. The spleen was extremely small, being reduced to one quarter of the ordinary size. The two points of greatest interest in the case were the difficulty of diagnosing the presence or absence of cirrhosis of the liver, owing to the condition of the lung, and the occurrence of hæmatemesis in connection with emphysema, without any appreciable contraction of the mitral orifice. It was evident that the obstruction of blood in the lung caused first of all a state of dilation and hypertrophy of the right ventricle, then regurgitation into the right auricle, and a congested state of the venæ cavæ hepaticæ and portal system. As there was a contracted spleen, and no diverticulum for the blood, it naturally caused the congestion of the veins of the mucous membrane of the stomach, and thus produced the hæmatemesis. He had not found many cases of hæmatemesis recorded as connected with emphysema of the lung without cirrhosis of the liver or contraction of the mitral orifice.

SCARLATINA.

Dr. Hewitt said, the specimen he now brought before them, was one having some slight connection with the paper he had the honour of reading before the Society at a former meeting, on the so-called purpuric fever. A child was brought into the City of Dublin Hospital, on Saturday week last, suffering from scarlatina. On the previous Thursday, a distinctly papular rash made its appearance on the skin, not the diffuse rash usual in scarlatina. It was distinctly raised and papular, and of a duller colour than is usual in scarlatina. The tongue was not as characteristic as it usually is, and the throat was not what would be called a bad form of sore throat. It was bright red, there was no livdity about it, nor at that time any ulceration, but the swelling of the tonsils produced some difficulty of breathing. Pulse 147. Temperature 103°, which rose in the evening to 104·6. She was ordered a mixture containing chlorate of potash and Minderer's spirit, and beef-tea and milk for dietary.

On the fifth day of the disease the throat was slightly ulcerated, and it was brushed with a solution of nitrate of silver, the urine was examined, but contained no albumen. She was ordered a combination of chlorate of potash, nitro-muriatic acid, and perchloride of iron ; the throat to be brushed with the solution of nitrate of silver three times daily, and poultices were constantly applied. Pulse 144. Temperature 103·8°.

On the seventh day she became much worse, the urine had diminished in quantity, the pulse had risen, and she exhibited a tendency to a stupid sleepy state. She was ordered to have a warm bath up to the loins for five minutes, and to have small quantities of wine of iron. The child was difficult to manage, for it would not open its mouth, and it necessarily had to be forcibly opened when it was to brush the throat.

On the ninth day the rash had not faded, the tendency to coma had increased and she refused to swallow, and at five o'clock it first exhibited opisthotonos. The occiput was almost drawn to the vertebræ ; the muscles at the back of the neck were very rigid. The ice-bag was applied to the spine from the third cervical vertebræ to the lower dorsal, and at short intervals to the head. Some slight benefit appeared to result for a time from this application, but at half-past ten o'clock the child died. He examined the spinal cord, but it exhibited no exudation of lymph. A quantity of dark blood was found to be contained in the areolar tissue between the theca and the vertebræ.

There were three or four drachms of clear serous fluid in the spinal arachnoid, and it caused the protrusion of the arachnoid through the apertures in the dura mater. No effusion was found in the ventricles of the brain. The substance of the brain was not softened, but there was some congestion of the cerebral veins, especially about the velum interpositum. He thought this case bore on an idea he brought forward on an former occasion, namely that cerebro-spinal fever was not an idiopathic acute inflammation of the spinal cord. He regarded it as indicating the fact that the poison of scarlatina may produce opisthotonos and rigidity of muscles, and that after death there will be no appearance of inflammation, no lymph thrown out, no purulent matter, but merely serum in the arachnoid, and fluid blood in the areolar tissue, between the theca and the vertebræ. It had been too hastily assumed that cerebro-spinal disease was a separate disease. He could conceive that the diseased blood in this case produced the irritation in the spinal centres which ended fatally. It was a remarkable fact, that although there were no purpuric patches before death, the body became plum coloured a few hours after death.

CANCER OF BOTH TESTICLES.

Mr. H. G. Croly exhibited a specimen of firm medullary cancer of both testicles. The patient on admission exhibited symptoms of cancerous cachexia. He was anæmic, and at the angle of the jaw, the submaxillary glands were much enlarged. He had an enormous enlargement of the scrotum. The man was supported freely by stimulants and nourishing diet, but he gradually sank and died the day after admission. The tumour itself was of great firmness; there were cysts in it, filled with the ordinary fluid of hydrocele. Some of the tumour cut like cartilage, although it looked like the fibrous form of cancer. There was very little difference between the right and the left sides. An examination of the viscera discovered cancer deposited in the kidney, stomach, mesentery, and liver. Pounds weight of cancer were found in the cavity of the abdomen.

Dr. Hewitt said the cancerous mass in the mesentery weighed at least eight or nine pounds, but unfortunately the exact weight was not ascertained. One of the kidneys especially was affected, the cancerous matter going through the substance of it, while the cancerous matter went round the other one. The man had but few symptoms of cancer, and was not affected with vomiting. It was that peculiar form of encephaloid cancer before softening, described by Mr. Paget, who says, that where this cancer occurs in the stomach near the pyloric orifice, and remained a long time, it became softened.

Dr. John Barker observed that cancer rarely occurred in both testicles, and the large mass of malignant disease appearing in the rest of the body, was a most remarkable circumstance. He found it presented, under the microscope, the ordinary appearance of encephaloid cancer.

Dr. Fleming said, among many cases of encephaloid disease of the testicle which had come under his notice, he did not remember one in which both testicles were engaged ; and if he mistook not there was hardly a case of the kind on record except one mentioned in the work of Sir Astley Cooper. Scirrhus in the testicle was rare, and on the removal of a testicle for encephaloid disease, the return of the disease was not uncommon; and he should like to know of any case where the second testicle was engaged after the removal of the other one. The surface of this tumour, as represented by the cast, was extremely smooth, whereas they knew that the ordinary cases were nodulated and irregular, an appearance which greatly assisted in diagnosis. The presence of cancer in the kidney was questioned by some, but he had seen specimens where cancer of the kidney existed instertially with minute deposits in every part of the organ. That cancer might engage both testicles must be admitted.

Mr. Collis observed, that this was just the class of case which would make one come to the conclusion arrived at on other grounds with great difficulty—that there was a great deal more analogy between tuberculous disease and cancerous disease, than was at one time allowed by pathologists. It was now universally admitted that the two diseases were compatible, but it was to his mind certain that in disease of the testicle, and in the secondary deposits which arise after disease of the testicle, the combination as it were, or the amalgamation of the two diseases, will be found most frequently. He had seen several cases in which disease of the testicle appeared at first sight to be cancerous, and in which the disease was found after death in many organs, including the liver, the lungs, the mesenteric glands, and in which a careful examination of the material showed its analogies of structure were rather with tubercle than cancer. The cells were rather those

of tubercle than of cancer, and at the same time its general history was rather that of cancer than tubercle. It was just in these doubtful cases, that they were called on to cast aside these names which, however useful as instruments of teaching, could not be applied to every case. He looked on this disease of the testicle as very much of this mixed type in which the structure is much more analogous to tubercle, especially that form of tubercle which conducts itself like cancer. The disease is just as malignant as if it were composed of cells of true cancer. He did not pronounce any opinion on the cells in this instance, not having had an opportunity of examining them, but he threw out this observation, that in disease of the testicle of this type, the two affections of cancer and tubercle seemed to be commingled.

Mr. WHARTON said Mr. Collis's remarks reminded him of an observation made by the late Mr. Houston in that room. In talking of the microscopical anatomy of cancer, he confessed he found great difficulty in distinguishing between scrofulous and cancerous cells. His remarks at the time were not met in the way they should have been, but certainly it now appeared to be well understood that there was much greater identity between scrofula and cancer than was formerly supposed to exist. Every one present had frequently seen cancer in scrofulous subjects. There was a case of the kind in the Meath Hospital the other day, and he had met with similar instances in private practice in which cancer appeared in persons having a scrofulous diathesis. He thought it due to the memory of Mr. Houston to say so much.

A CASE OF PARALYSIS, AND A CASE OF SUPPRESSION OF THE MENSES, TREATED ACCORDING TO DR. CHAPMAN'S METHOD.

Mr. J. H. BENSON said—Mr. President—I have the honour of bringing under the notice of the Society this evening, two cases of disease treated by modifying the temperature of certain regions of the spine.

This mode of treatment, we are all aware, has been tried in a variety of diseases by Dr. John Chapman, of London, and has lately been brought prominently and ably before the profession by that author. However, in Dublin, as far as I am aware, this new method does not seem to have received much attention, at least it has not attracted the notice of this Society, and I, therefore, take the liberty of bringing forward the subject now, with a view to eliciting from the members of the Society, their opinions respecting the value of the introduction, and their experience of its use.

It is now several years since Professor Todd well observed that inflammation was "a deranged nutrition;" but it seems that the same definition might, with good reason, be extended to all disease, if, that is, we accept as a definition of the word nutrition, "the performance of those transformative processes by which new structures are built up, and the old are carried away." Accepting this, it follows, that as the nervous system presides over nutrition in every form throughout the body, it would be natural to expect, that a deranged state of the nervous centres would be followed by a corresponding derangement of nutrition in those parts, over whose nutrition the deranged nervous centres preside. And again, that of diseases, many at least throughout the body are caused primarily, or maintained as disease secondarily, by a certain deranged state of the nervous centres.

In a great number of diseases this derangement, whether primary or secondary, of the nervous centres, is of a nature obscure, and difficult or impossible to detect in the present state of medical science; but in others there seems good reason, chiefly founded on clinical observation, to believe that this derangement is, in the first instance at least, either an excess or a deficiency of functional activity, and that these conditions are due to either hyperæmia or anæmia of the nervous centres, whose activity is exalted or depressed, though direct proof of this latter hypothesis is wanting. If, therefore, we could increase or decrease the supply of blood to the nervous centres, we should, on this hypothesis, at once be able to exalt or depress the functional activity of those centres, and thus, it would seem, be able to control, in a measure, and alter the nutrition of certain parts of the body related to them, or, in other words, have a new therapeutic agent in our hands by which to control *disease*.

This grand object seems to have been accomplished in a very simple way by Dr. Chapman, and by the use of heat or cold to the spine, a great number of diseases seem capable of being successfully treated. This power, moreover, extends not only to nervous diseases, universally so-called, but also to many of those which, previous to his discovery, were never considered to have had any casual relation to a deranged state of the nervous centres. Such for example are bronchitis, diarrhœa, constipation, leucorrhœa, and the usual disorders of menstruation, some skin diseases, and many others.

Whether this therapeutic agent then, is a powerful one or not, is to be determined by experiment; and, I think, that those who give it a fair trial will agree that it is, whatever be their opinion of the soundness of the theories which are involved respecting it.

In several cases of disease I have used this agent, but generally in conjunction with others, and, therefore, though satisfied in my own mind of its influence for good in those cases, I did not report them, for in order that the remedial value of any given general mode of treatment should be fairly tested, it is obviously desirable that the treatment should be used alone. In the two following cases, however, cold to the spine was used successfully, unassisted by any other agent whatever.

In preparing these to lay before the Society, I have endeavoured to avoid entering into tedious details, which were not of importance, as bearing on the special mode of treatment in question.

Case 1.—M. P., æt. 34, residing in a distant country town, was affected with partial hemiplegia of the left side, brought on by cold. Without assistance he could not attempt to walk. In addition to this affection he also suffered from habitual muscular tremors of the left side exclusively. These were chiefly confined to the head, shoulder, and arm; and at irregular intervals of from a few days to a week or ten days, they became much aggravated, almost assuming the form of convulsions. Both extremities of the left side were slightly wasted.

The patient had been suffering in this way for eleven months in the country, and though he was under the care of a skilful physician all that time, his condition did not improve, but was rather becoming steadily worse.

On the 27th May, 1867, he was admitted into the City of Dublin Hospital. He was then treated with bromides, tonics, and other remedies, specially addressed to the nervous system, but at the end of a month he had not made the slightest progress towards recovery. On June 25, by means of Chapman's ice-bag, ice was applied along the greater part of the spinal column, both morning and evening, for half an hour each time. The application felt in no way uncomfortable, but rather the reverse, and next day he reported himself as feeling rather better, and having less of the habitual convulsive tremors.

For the next four days the ice was applied as before. The patient was highly pleased with the application. The spasmodic muscular actions were much less marked—almost absent. All medicinal treatment was now stopped, and was not resumed at any subsequent period.

July 1.—From this date till he left the hospital, on July 20, the ice was applied for one hour every morning and evening.

During this interval of twenty days his condition improved steadily.

The muscular tremors had so far subsided, that he could raise a tumbler, filled with water, to his mouth, several times successfully without spilling the fluid—a feat which he could not have performed for more than a year previously. During this period he had had only one of those attacks, which I have described as aggravations of the habitual muscular tremors. His health, too, and the strength of his limbs, were so far benefitted that he was enabled to go of messages about the house, and assist the nurses and porters in their duties.

On the 20th, as I went off duty, he returned home, with a promise from me, that if his improvement did not continue steadily, I would readmit him after the summer recess. I regret to have to state, however, that before this period had ended, he had again become so seriously ill that he was unable to attempt the tedious journey to Dublin.

Case 2.—M. C., æt. 18, was admitted into the City of Dublin Hospital, in June 1867, suffering from obstinate suppression of the menses, occasioned, suddenly, by having contracted wet feet during one of her menstrual periods. This malady was accompanied by a severe and continuous headache.

A few months after this sudden cessation of the menses, the patient applied for advice at one of the principal hospitals in Dublin. In that institution she remained for nearly four months, and though treated actively the menstrual function was not restored.

When admitted into the City of Dublin Hospital she was again subjected to the usual modes of treatment for such affec-

tions, but without avail. For the last three weeks of her sojourn in hospital, the treatment consisted exclusively in the application of Chapman's ice-bag to the lower dorsal and lumbar regions of the spine, during half-an-hour, twice each day. All other remedial measures were suspended. This treatment also failed to produce the desired effect, though at every application it caused the characteristic pains, and sensations of commencing menstruation. Yet the remedy was not wholly without advantage. From the very first day of its application, the severe headache, from which the patient had suffered for upwards of two months previously, and which nothing was found to remove, or even scarcely benefit, began to diminish, and in three days it had completely left her. At the same time her feet, which had been habitually cold for several months, began to assume a more normal temperature. Before any other marked effect followed, however, the treatment was interrupted, for I went off duty, and the patient left the house.

After this, I did not again see her till the 16th October, when she begged to be readmitted into hospital.

She then informed me that the headache and coldness of the feet had returned very soon after she left the house in July, and had been continuous ever since, with very few and short interruptions. Menstruation, too, had never taken place since that time. During this interval, she had received neither advice nor medicine of any kind.

On her admission, I at once ordered the ice-bag to the lower dorsal and lumbar regions of the spine, for three-quarters of an hour. All other treatment was withheld. After the bag had been applied for about half-an-hour, she complained of obscure pains in the back; objects appeared yellow to her vision; her stomach became nauseated, and after eleven hours she had the great satisfaction of becoming aware that the menstrual flow was taking place. The headache, at the same time, was greatly relieved.

Next day I found the flow was still proceeding, but as it was not so plentiful as on the previous day, I applied the bag to the spine again.

On the third day not a vestige of the headache had remained, a more natural warmth had returned to the lower extremities, and the menstruation was proceeding naturally and without pain, and continued to do so until the expiration of the period usual with the patient—five days. She was then discharged.

A few days after she left the hospital, she called upon me to thank me for the great relief afforded her by the application of the ice-bag, and said she had not felt so perfectly well and happy since she first incurred the wet feet, just a year previously.

On Feb. 5th, about three and a-half months after she had left the hospital the second time, I saw the girl again. She then told me that she had enjoyed excellent health, and that menstruation had proceeded with almost perfect regularity ever since that time.

Thinking that the notes of this case would be acceptible to Dr. Chapman, I enclosed them to him, asking him at the same time for his opinion on the case, and for any suggestions which might occur to him. By return of post I received a most courteous reply, from which I extract the following interesting and instructive comment on the case:—

He says:—"You applied the ice-bag, I observe, during half an hour, twice each day, and at the end of three weeks of treatment, menstruation was not re-established, though the headache was removed, and characteristic menstrual pains were induced. It is probable that had the ice been applied for a longer time, say 45, 60, or even 90 minutes each time, menstruation would have been induced during the first period of treatment. When ice is applied for only a short period, say from 15 to 30 minutes, there is a tendency to subsequent reaction in the form of undue contraction of the peripheral arteries, previously dilated under the temporary influence of the ice.

"In such cases you may find, that though the patient is quite warm during its application, she will shiver in a short time after its removal. In these cases, if you will prolong the application of the ice, shivering will, generally speaking, not follow. Again, during the first few days of treatment, while the spasmodic tendency of the unduly contracted arteries is but partially overcome, they are prone to resume their former habit, soon after the ice has been removed; whereas, a few days later, when it has produced on the vaso-motor nerve-centres a more abiding sedative impression, no symptom of peripheral reaction is observable. It must be borne in mind that arteries which have long been spasmodically contracted, require the prolonged and persistent force of the blood pressing forward within them, in order to re-expand them to their normal size, and, therefore, that which the action of the ice is cumulative, it is necessary to continue its use steadily every day, in many cases for a considerable time, and if there be no special reason to the contrary, straight through the menstrual period, in cases of menstrual suppression not due to so-called 'organic' obstruction.

"Allow me, however, to insist with the utmost emphasis, that the application of the spinal ice-bag must never be so prolonged as to cause internal aching or discomfort, unless of that special kind immediately preluding menstruation. If a patient should become cold while the ice is on, it should be at once removed. A woman, however, may shiver simply because the ice-bag has slipped down over the sacrum. As a rule it is expedient to let it reach no lower than the third lumbar vertebra. In the case of M. C——, the rapid cessation of her headache proved that an increased circulation was speedily induced in the womb, although menstruation did not immediately recur."

These two cases, sir, were treated successfully, as you have seen, by means of the ice-bag, in the hands of one perfectly unprejudiced, after all other means had failed.

There was one important difference, however, between the two, that, whereas, the benefit in the one case was premanent, in the other it was only temporary. Yet I have not the slightest doubt that the case of the paralysis would also have been followed by permanent benefit, though perhaps not so complete as in the other case, had the treatment been sufficiently prolonged.

Dr. Robert McDonnell said he had tried the ice-bag in several cases, and without finding any benefit from it. One of these cases Mr. Fleming saw in Mountjoy Prison some years ago. He was recommended to try the ice-bag by Mr. Spencer Wells, who happened to be present. It was a remarkable case of chorea, at one time affecting the whole of the man's body, but which was then limited to the right arm. He tried the ice-bag for a long time very persistently, without deriving any benefit from it. He tried it afterwards in several cases of a similar nature; one was a remarkable case of a lady who could not keep her head up without being propped beneath the chin. The physiological principle on which the ice-bag is said to act was exceedingly interesting; and he thought it a strange thing that Dr. Chapman had not brought forward a single direct proof that it acted in the way he said it would act. No doubt it sounded very well to say that if you apply an ice-bag on a particular part it will act on the nerves, and thereby produce an effect on the blood-vessels; but had we any proof that cold placed along the spine would produce any lowering of temperature a few inches below the surface. He thought at the present day, nothing in therapeutics was so interesting as the accurate study of those drugs which, acting on involuntary muscles, regulate the supply of blood going to particular parts. This is the way in which strychnine, belladonna, ergot of rye, and other agents act. It was possible that cold might act in the same way, but as yet we had not got any precise facts on the subject. Dr. Chapman had certainly not brought forward any fact in support of his theory. According to it we could produce sleep, by putting cold to the head, with great certainty. It was known that in a condition of sleep the blood-vessels which supply the brain were in a state of contraction. If by putting on an ice-cap that condition of the vessels could be brought about sleep ought to ensue; but however useful ice might be as a sedative, we could not compel sleep by such a process. He (Dr. McDonnell) had himself made some experiments with a view to determine whether cold placed to the surface would lower the temperature at any considerable distance below it. He found that it did so at first, but after a little time there came on reaction, in which the blood-vessels dilate more. He had made the experiment by passing the bulb of the thermometer into a psoas abscess in the thigh, where it could pass in for several inches; and he found when cold was applied to the surface the thermometer fell, but if kept in for a short time it soon recovered itself and went up again as much as ever. A precisely similar effect was found to be produced by cooling the opposite or symmetrical part of the body. It was what occurred in the remarkable experiment mentioned by Mr. W. F. Edward, but the true explanation of which was given by Dr. Brown-Séquard. Suppose a thermometer taken in the right hand, and the bulb of another placed under the tongue and allowed to rise until both came to the same height. If the opposite arm was put into a vessel containing ice, the thermometer held in the hand would sink, while that under the tongue

would remain unaffected. It was quite clear that if the whole of the blood were cooled by plunging the arm into ice, the thermometer under the tongue and that held in the hand would be affected equally. It was from the contraction of the blood-vessels in the symmetrical part of the body, through the medium of reflex nervous influence, that the effect was produced. He had himself made a modification of this experiment. He placed a bat with wings expanded so as to keep one of them under the microscope. He selected a blood-vessel in the wing, and measured it by the micrometer; then placed on the other wing a little mass of ice and salt, and while looking at it under the microscope, the vessel contracted almost to closure. He had shown the same thing where the bulb of the thermometer was run deep into a psoas abscess. If a wet cloth was placed on the other thigh, and ice put upon it, the thermometer would immediately fall, and this plainly occurred from the cooling of the symmetrical part of the body. He only said, as yet, on a subject which was capable of being proved by industry and precision, that not one single fact had been brought forward by Dr. Chapman in support of his theory; and so far as his own experience went, he found that although the application of ice may at first give rise to contraction, it afterwards gave rise to the very opposite of what Dr. Chapman claimed for it. He still thought they stood merely on the threshold of the subject.

Dr. HEWITT said that he concurred with Dr. McDonnell in his views as to the want of precision and scientific accuracy in Dr. Chapman's statements as to the effects of the spinal ice-bag, but he thought that there could be little doubt that in many cases it would prove a powerful agent for the cure of disease. His attention was directed to the remedy by the facts observed by his colleague, Dr. John H. Benson, and he confessed until that time he had been incredulous as to the effects of Dr. Chapman's treatment. He had used the ice-bag in a case of delirium tremens after capsicum had failed and tartar emetic and opium had seemed to do harm, and found that it checked perspiration, cured the tremors, and produced sleep almost immediately. He hoped to bring this case under the notice of the Medical Society of the College of Physicians, and believed that he was the first to use ice to the spine for delirium tremens. The results in this case were precisely those attributed to the remedy by Dr. Chapman, and he thought they were fraught with interest.

Mr. WHARTON asked Dr. Benson in what state the menstrual secretion was before this girl was brought under treatment.

Dr. BENSON replied that up to the time of her first having got wet feet the menstruation was perfectly regular. With regard to Dr. McDonnell's observations, the same thing struck him also, and he made allusion to it in his paper, that proof was wanting; but facts were stubborn things, and in some cases facts did bear out Dr. Chapman's treatment, whether he explained them rightly or otherwise. Dr. McDonnell spoke about applying cold to the head to produce sleep, by contracting the arteries. If Dr. Chapman wanted to contract the arteries of the brain he would apply heat to the nape to stimulate the sympathetic nerves and give contractile energy to the muscles surrounding the artery. As to reaction, Dr. Chapman acknowledged that it would take place if the ice-bag were put on only for a short time; but if kept on long enough, he said, there would be no reaction, and it would produce the desired effect.

The Society adjourned.

MEDICAL SOCIETY OF LONDON.

MARCH 16TH, 1868.

Dr. B. W. RICHARDSON, F.R.S., President, in the Chair.

A VOTE of thanks to the retiring President, H. Smith, Esq., was proposed by Mr. Hunt, seconded by Dr. Thorowgood, and carried with acclamation.

Dr. RICHARDSON delivered a most interesting address. After congratulating the Society on its present position, and suggesting some changes with a view to its increased usefulness, he enunciated the conclusions to which his recent researches had led him, as "The Laws of Attraction and Resistance of the Nervous System." He contended that the nervous organism is not a centre for the constant liberation of force, but a centre in which force can be returned or transmuted. The prime conductor of internal force in the body is the blood.

In answer to a request from the Fellows, the President announced that his observations should be printed so that the propositions might be submitted *seriatim* to criticism.

Mr. HENRY SMITH exhibited a specimen showing a hard cancerous growth involving the prepuce and penis, which he had removed from a patient, aged 55. The patient had been under the care of two other practitioners who had been treating the disease as of a simple non-malignant character. Mr. Smith gave it as his opinion that the only course to be pursued was to amputate the affected part. The patient was going on most satisfactorily.

A long and interesting discussion ensued, especially on the possibility of the transmission of cancer by contact, the opinion of the large majority being that the disease was not so transmissable.

Dr. W. H. DAY narrated a case of inflammation of the cœcum caused by sea-sickness. He considered the case to have been one where the portion of bowel had been considerably loaded, and the violent vomiting on board ship had set up inflammatory action, which at one time threatened to extend. It is still under treatment.

In the discussion which ensued, Dr. Cholmley, Dr. Hare, Dr. Sansom, and Mr. Hunt, took part.

In answer to a question from the President, Dr Leared narrated a case of death from sea-sickness.

Dr. LEARED made a communication on a case of inflammation of the alveolar periosteum, which had at once subsided on the occurrence of an attack of gout.

The PRESIDENT mentioned a similar case, and a discussion ensued.

Correspondence.

CONDY'S FLUID.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As an experimental chemist I have, for the last three years, used and closely watched the effects of permanganate of potash (Condy's fluid) as a cleansing and disinfecting agent; and when a man, like Dr. William Proctor, is seemingly uninformed as to its *practical uses*, it is perhaps time to make known that (if used according to the simple directions) it is a much cheaper, more agreeable, and better purifier for medical and general purposes than other articles; and that so far from destroying clothing or furniture, it is one of the very best means of purifying either, or improving them in appearance. Its daily use in the nursery will convince any practical man that it materially conduces to the health and appearance of the children, rendering the room at all times sweet and wholesome, a fact that cannot be too widely known.—I enclose my card, and am, sir, A PRACTICAL CHEMIST.

CONSANGUINITY

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The interesting letter in your last number on "Consanguinity," prompts me to write a line thereanent. Some time ago a society in America was circulating queries on the subject, in order to amass statistics, but I have not heard the result. Perhaps some of your correspondents in the western hemisphere can enlighten us as to that society's proceedings.

C. G. seems to have hit the mark on several points, and his letter is, therefore, of great value. The facts he names are of such interest, that one can only wish he had given us a further account of the topography and natural history of the valley of cousins, as we may call the uncivilized, outlandish country he has described. If he can supplement his letter, I hope you will give him space to do so.

Very naïvely does he remark, "we must first find two members of one family perfectly free," &c., a search for which, in a country like this, would not be likely to be successful. I re-echo this. "First catch your hare."—I am, &c.,

A. B

DISLOCATION OF THE HEAD OF THE FEMUR ON THE DORSUM OF THE ILIUM, REDUCED BY MANIPULATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I was much pleased to read in your last number, in the clinical reports by Mr. Edward Hamilton, the case of dislocation of the head of the femur on the dorsum iliac, reduced by manipulation.

Some twenty years ago (I do not write for priority), as surgeon to the South Hants Infirmary, a similar case came under my charge, which foiled my efforts at reduction in the usual way by pulleys—when it occurred to me that by maintaining the shaft of the femur in a favourable position, and throwing it backward its head would be elevated over the edge of the acetabulum, and fall into its normal position. I therefore placed the patient on his back, and while an assistant held the pelvis steady, I drew up the foot of the displaced limb (the left) to the inner side of the other knee, and resting on the bed. Thus the knee was flexed, and this movement brought the neck of the femur to a right angle with the ilium, on which its head rested, behind the articulation. Placing my right hand over this part of the bone, more with a view of ascertaining that this relative position was preserved, than assisting the reduction, I grasped the bent knee with my left hand, and abducted the limb when the head of the bone started forward, easily into its natural cavity.

The mechanism of the operation is easily demonstrated in the skeleton.

I sent a statement of the case to the *Lancet* and the *Journal of the Provincial Medical and Surgical Association*, at the time, and it is referred to in "Fergusson's Practical Surgery." I mentioned the plan to several surgeons for trial in such cases, and I am happy to find it has been successful in the hands of the other practitioners named in the report.—I remain, sir, your obedient servant,

Southampton. H. CLARK, M.D., M.R.C.S., F.S.A.

"HOSPITAL APPOINTMENTS IN DUBLIN."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—It was only this evening I noticed in your impression of the 18th inst. the article headed "Hospital Appointments in Dublin."

With reference to that portion of it which relates to myself, I have the pleasure of informing you that I *have* been appointed one of the Examiners in Surgery in the University of Dublin.—I am, sir, your obedient servant, J. H. WHARTON.

28th March, 1868.

"PURCHASE SYSTEM" IN DUBLIN HOSPITALS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The meaning of my letter published in *Saunders* of the 12th ultimo has not been correctly understood by all its readers in one very important particular. It was not my wish to condemn in any way the purchasing of the resignations of hospital men. In favour of what is known in Dublin as the "purchase system" much can with justice be urged. Even many who do not approve of it acknowledge that where carried out fairly and legitimately it has proved the most available remedy for worse evils. But on the occasion alluded to *two-thirds* of an hospital staff contemplating speedy retirement sought to play out what a letter signed "T. O. B." in *Saunders* of April 4th designates a "pretty little piece of business." Hence the *denouement*—not in censure of the "purchase system," but of its attempted gross abuse.—Yours, &c.,

"ONE OF THE GOVERNORS OF MERCER'S HOSPITAL."

Medical News.

MISS GARRETT.—"A duly registered Practitioner." The following curious entry occurs in page 163 of the *Medical Register* for 1868, (just published):—

"1866, Sep. 1.—Garrett, Elizabeth, 20, Upper Berkley-street, Portman-square, London, W.; lic. soc. apoth. Lond. 1865."

VACCINATION IN SCOTLAND.—The third annual report of the Registrar-General of Scotland, made in pursuance of the Vaccination Act of 1863, shows that upwards of 96 per cent. of the surviving children of 1866 have been vaccinated. 113,730 births were registered in the year 1866, but 9,433 died unvaccinated, leaving 104,297 surviving. Of this number 96·27 per cent. were successfully vaccinated; 0·56 per cent. had their vaccination postponed from ill-health or other causes; 0·56 per cent. were found insusceptible of vaccination, many of them from having been already vaccinated, and all being equally insusceptible of small-pox; the remaining 2·61 per cent. are returned as removed from the district before vaccination, or otherwise not accounted for. Little more than 3 per cent. of the surviving children of 1866 are unprotected by vaccination. In some of the islands a regularly appointed vaccinator can attend only once in two years. So far as at present appears, the Vaccination Act has been successful. Never since civil registration began in Scotland has small-pox been so rare as during the past three years when the Vaccination Act was in full operation.

BRANCH MEDICAL COUNCIL (IRELAND)—List of Entries for the month of March, 1868:—Thomas Mannon Woodley Ahearne, 126, George's-street, Cork, L.R.C.P.Edin., 1867; L.R.C.S.Edin., 1867. Ambrose Bodkin Kearney, Cliften, Co. Galway, L.R.C.P.Edin., 1867; L.R.C.S.Edin., 1867. Edward Hadden, Maryborough, Queen's County, L.R.C.S.Irel. 1868. Henry Harris Langstaff, Athlone, Co. Roscommon, M.B., 1867, and M.Ch., 1868, Univ. Dubl.

THE Dublin Obstetrical Society will meet in the College of Physicians on Saturday next, April 11th. The following communications will be made:—1. T. E. Beatty, "Case of Fibro-cystic Tumour of the Vagina." 2. R. W. Harley, "Case of Gonorrheal Rheumatism after Parturition." 3. G. H. Kidd "On a Rare Form of Prolapse of the Uterus cured by a Plastic Operation."

QUARANTINE RESTRICTIONS IN THE WEST INDIES.—The *Jamaica Gleaner* of March 10th says:—"All vessels touching at St. Thomas are prevented entering any harbour in Porto Rico, and in the event of their touching off the port a penalty of £500 will be incurred if they do not proceed to sea within one hour. Even communication for the supply of water is denied. At Barbadoes the quarantine regulations are 20 days; at Demerara, 12; and at St. Croix and Tortola no communication is allowed, as a *cordon sanitaire* has been established. In Jamaica, in consequence of representations from Mr. Lamb, the British Consul at St. Thomas, his Excellency the Governor, with the advice of the Central Board of Health, has directed that stringent measures should be adopted here to prevent the possibility of the introduction of infectious diseases. The expected packet will be required to state from what vessels and hulks she received coals, when these left St. Thomas, and if any communication had taken place between them and St. Thomas from the time of their departure. Any unsatisfactory answer will render the ship liable to quarantine.

NOTICES TO CORRESPONDENTS.

Mr. E. S., Sandgate.—Altered to make it more suitable.

MEDICAL SOCIETY OF LONDON.—On Monday next Mr. Bryant reads a paper "On some Affections of the Breast Simulating Cancer," and Dr. Oppert, one on "Existing Hospitals."

A VOLUNTEER MEDICAL OFFICER.—It is not a necessity, but advisable that you should do so. See letter in our correspondence columns from a member of the force on the subject.

M. S., Liverpool.—Declined for obvious reasons.

SURGICAL APPLIANCES.—Sorry we cannot afford you space. You advance on no new field, and we cannot find room for constant repetitions of other men's ideas.

Correspondents will accept our thanks for the following newspapers:—East London Observer, Hobart Town Mercury, Tasmanian Times, Public Health, Hastings News, Worcester Chronicle, Liverpool Mercury, &c.

J. O. C., M.D., Woolwich, is thanked for the following kind expressions which we extract from his letter as a specimen of others we are daily receiving:—"I am pleased that the leaves are cut, as it saves me much time and trouble. I also wish to say that I am altogether satisfied with THE MEDICAL PRESS AND CIRCULAR."

MEDICAL OFFICERS OF VOLUNTEER CORPS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Understanding that there was a numerous attendance of surgeons of the different volunteer corps the other day at the West End, for the purpose of considering their position and responsibilities on field-days, allow me to say, as an old staff-surgeon, that I cannot see why a surgeon of volunteers is not to be distinguished on the field by wearing the cocked hat, the same as an officer of the line is obliged to do; but I believe more than half the surgeons of the volunteers wear the shako minus the tuft, and if their services are required, it is difficult for any man who falls out to recognise his surgeon.—I am, sir, your obedient servant, AN OLD VOLUNTEER SURGEON.

Kingston-on-Thames.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Is there any way of making a person answerable for "Quack Treatment" of a dispensary patient. *Under medical treatment at time of such interference*, a patient of mine has been injuriously "quacked," and but for timely aid, might have owed his death, in a great measure, if not entirely, to the interference of a person professing ability to cure disease.—Yours obediently, A SUBSCRIBER.

[OUR correspondent suffers under a grievance against which he has no redress. It is competent for the patient to prosecute for malpraxis, and to sustain his case by the evidence of his medical attendant, but no action could be maintained by the physician in consequence of interference for which the patient alone was responsible.]

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.

THE SUMMER SESSION commences on FRIDAY, May 1st.

LECTURES.

Midwifery	Dr. John Clarke.
Materia Medica	Dr. Dickinson.
Practical Chemistry	Dr. Noad, F.R.S.
Botany	Dr. Maxwell Masters.
Medical Jurisprudence	Dr. Wadham.
Pathology	Dr. J. W. Ogle.
Comparative Anatomy	Dr. Bright.
Dental Surgery	Mr. Vasey.

On the payment of a compounding fee of 100 guineas, a pupil becomes perpetual to the practice of the Physicians and Surgeons and to all Lectures, may compete for all Prizes, Exhibitions, and for the Office of House-Physician, House-Surgeon, Medical and Surgical Registrar, and may become Clinical Clerk and Dresser for two periods of three months each.

On the payment of 40 guineas at the commencement of the first Summer Session, 40 guineas at the commencement of the second Summer Session, and 10 guineas for each additional year, a pupil will be admitted to the Hospital Practice and Lectures required for Examination by the various Examining bodies.

Gentlemen can enter to the Hospital Practice and Lectures separately, or to any one Course of Lectures.

The Hospital contains 350 beds. Clinical Lectures are delivered by the Physicians and Surgeons every week.

A MATERNITY DEPARTMENT, for the delivery of married lying-in women at their own homes, is established at the hospital, and a ward is devoted to the reception of women suffering under diseases peculiar to the sex.

The following Prizes will be awarded at the termination of the Session:—

Sir Charles Clarke's Prize for Good Conduct.
The Thompson Medal.
Sir Benjamin Brodie's Clinical Prize in Surgery.
The Henry Charles Johnson Memorial Prize in Anatomy.

A General Examination will be held at the end of the Session, and a Certificate of Proficiency given to each pupil who passes to the satisfaction of the Examiners, and the following Prizes to the most distinguished, viz.:—

A Prize of Ten Guineas to Pupils in their First Year.
A Prize of Ten Guineas to Pupils in their Second Year.
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Further information may be obtained from Dr. Barclay, the Treasurer of the School; Mr. Holmes, Dean of the School; or from any of the Lecturers at the Hospital.

ROYAL COLLEGE OF SURGEONS.
SCHOOL OF SURGERY.

THE SUMMER SESSION commenced on MONDAY, the 6th April, and includes the following Courses of instruction:—

Botany	Dr. MINCHIN.
Practical Chemistry	Dr. W. BARKER.
Medical Jurisprudence	Dr. GEOGHEGAN.
Materia Medica	Mr. MACNAMARA.
Midwifery	Dr. SAWYER.

Premiums will be awarded at the close of the Session.

By Order,
JOHN BRENNEN, Registrar.

CARMICHAEL SCHOOL OF MEDICINE,
NORTH BRUNSWICK-STREET.

THE SUMMER SESSION will commence on WEDNESDAY, April 15, 1868.

Practical Chemistry	Dr. E. Davy.
Materia Medica	Dr. Frazer.
Medical Jurisprudence	Dr. O'Reilly.
Botany	Dr. Campbell.

FEE FOR EACH OF THE ABOVE COURSES, £3, 3s.

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For particulars apply to Dr. CORLEY, *Registrar*, 14, *Summer-hill, or at the School.*

LEDWICH SCHOOL OF MEDICINE.
SUMMER SESSION, 1868.

THE SUMMER COURSE commenced on MONDAY, April 6, and includes the following course of Lectures.

Materia Medica	Dr. McDowell.
Practical Chemistry	Dr. Cameron. Dr. Reynolds.
Midwifery	Dr. Ringland.
Forensic Medicine	Dr. Travers.
Botany	Dr. Maunsell.

Prospectuses and full particulars at the School.

EDWARD LEDWICH, Secretary, 7 Harcourt-street.

April, 1868.

DR. STEEVENS' HOSPITAL AND MEDICAL COLLEGE, DUBLIN.

THE SUMMER SESSION, 1868, commenced on MONDAY, APRIL 6TH, and includes the following Courses of Instruction:—

CLINICAL MEDICINE.	CHEMISTRY.
CLINICAL SURGERY.	JURISPRUDENCE.
MIDWIFERY.	BOTANY.
PRACTICAL MIDWIFERY.	OPERATIVE SURGERY, AND PATHOLOGY.
MATERIA MEDICA.	

Particulars may be learned from Dr. SWAN, Resident Surgeon at the Hospital, or from

EDWARD HAMILTON, Hon. Secretary.
120, Stephen's-green, W.

SURGICAL SOCIETY OF IRELAND.
Meeting of the 17th postponed to the 24th inst.

THE Next Meeting of the Society for the present Session will be held in the Albert Hall, Royal College of Surgeons, on FRIDAY EVENING, the 24th inst.

Chair to be taken at half-past Eight o'Clock precisely.

By Order,
CHAS. BENSON, } Hon.
B. WILLS RICHARDSON, } Secs.

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By the important improvement in the distribution of profits introduced by this Association (known as the Briton feature), policies on the ordinary rate of premium become payable to the assured himself on his attaining an advanced age, or at his death, should that occur sooner. When the policy is for £200 or upwards, and the assured life is not under 25 years of age, whole world leave of travel and residence is granted on payment of one small sum, determined in amount by the occupation and circumstances of the applicant, and the policy is made absolutely indisputable and indefeasible from the date of its issue.

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1857 to 1861 inclusive.	10,799	£2,100,268	7,799	£1,492,405	£46,117 0 10
1862 to 1866 inclusive.	16,401	4,277,918	12,521	3,283,782	105,162 0 0

Prospectuses and every information may be had on application to JOHN MESSENT, F.I.A., F.S.S.

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JAMES'S FEVER POWDER, 4s. 6d. per bottle, Packets 2s. 9d. each.

Prepared and sold by J. L. KIDDLE, 31, Hunter-street, Brunswick-square, London.

This Preparation has been so extensively employed by the Faculty, and its merits so universally acknowledged by the public at large, as to render all further remark on the part of the Proprietor unnecessary. To be had of all Wholesale Druggists.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 15, 1868.

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Dr. LETHEBY'S THIRD LECTURE ON FOOD.

CONSTRUCTION OF DIETARIES: PREPARATION AND CULINARY TREATMENT OF FOODS.

(Continued from page 302).

In the treatment of vegetable foods it is important to remember, that all corky and woody tissues, as the skins of fruits, tubers and cereals, are quite indigestible, and that in consequence of their irritating action they hurry food through the alimentary canal, and so occasion waste. It is necessary, therefore, that all such tissues should be removed as completely as possible.

When it is required to obtain the starchy or farinaceous matters of vegetables, one or other of the following processes is followed:—

(a). The material is pulped or crushed, and diffused through a considerable volume of cold water. It is then strained and allowed to stand until the farina or starch subsides.

(b). Or it is allowed to pass into a state of putrefactive decomposition, whereby the albuminous matter, as the gluten, &c., decay and leave the starch untouched.

(c). Or it is subjected to the action of a weak alkaline solution, generally of caustic soda, which dissolves the gluten, and allows the starch to subside. The gluten thus dissolved may be again recovered by neutralizing the alkaline solution with acid, and collecting the precipitated gluten, as in the processes of Durand, and others.

I have already explained that in the treatment of the ground meal of wheat and other grain, the bran and coarser kinds of flour are separated by sieves of different degrees of fineness, and that in this manner about eight or nine varieties of product are obtained, as *biscuit flour, best or fine households, seconds, tails, fine sharps or middlings, coarse sharps, fine pollard, coarse pollard,* and *long bran,* the proportions of these from ordinary brown meal will vary according to circumstances, but processes have been invented, as by M. Mège Mouries, M. D'Arblay, and others, whereby the yield of fine flour is increased to from 86 to 88 per cent. of the grain, and by which the quantity of gluten is also regulated.

When the flour is rich in gluten, as in the case of the hard wheats of Sicily, Russia, Sardinia, and Egypt, they are well suited for the manufacture of certain granular powders and dried pastes, which are known as *Semola, Semolina, Soujee, Mannacroup, Maccaroni, Vermicelli,* and *Cagliari paste.* The last three are generally imported from Naples or Genoa, where they are made from a highly glutenous wheaten flour by kneading it into a thin dough or tenacious paste, and then forcing it through holes or slits in a metallic plane. In this way the several varieties of *pipe, celery,* and *ribbon maccaroni* are obtained; and the fancy forms of it, called *Cagliari paste,* which are in the shape of stars, rings, Maltese crosses, &c., are produced by stamps. All these varieties of paw wheaten paste are cooked by boiling or baking, and are associated with soup or beef-tea, or milk, or are mixed with eggs, cheese, &c.

The best variety of flour for bread is that which contains less gluten than the preceding, as from 8 to 10 per cent. of it, instead of from 12 to 14, or 15. Dantzic flour, and soft Spanish, as well as the American called Genessee, are the best examples of it, and are highly esteemed by bakers on account of the fine quality of bread which is procurable from them; the richer varieties of hard glutenous wheat being used only to impart strength to weak and inferior descriptions of flour.

Bread, which is the most important preparation of flour, owes its value as an article of diet to a good and equable vesiculation of the dough, the vesiculation being effected by the diffusion of small bubbles of carbonic acid gas throughout its substance; and, as this vesiculation can only take place in a proper manner when the gluten of the flour is in sufficient quantity, and of good quality, it is to some extent a test of the goodness of the meal. Those flours which contain too little gluten, or gluten which is deficient of strength, cannot be vesiculated into bread. This is the case with almost every description of flour, excepting that of wheat and rye.

The most common, and also the most ancient method of vesiculating bread is by fermentation; and the process is not very different from what it was in very early times, when we were told that "a little leaven leaveneth the whole lump." Yeast of some sort—as brewer's yeast; or patent yeast, prepared from infusion of malt and hops; or German yeast, which is the solid residue of the yeast produced by the fermentation of rye for making Hollands; or baker's yeast, which is made from potatoes and flour; or leaven, which is old dough in a state of fermentation, is mixed

with the flour or dough, which soon begins to ferment by the action of the yeast fungus *(micoderma cerevisiæ)* on the sugar of the flour. Carbonic acid is thus produced; and by being diffused through the substance of the dough it vesiculates it, and causes it to rise or swell. The most usual practice with the baker is somewhat as follows:—A special ferment is prepared from mealy potatoes (technically called *fruit)* by boiling them in water, mashing them, and allowing them to cool to a temperature of about 80° of Fahrenheit. Yeast is then added to them, together with a little flour to hasten the fermentation. In three or four hours, at a proper temperature (as from 80° to 90° F.), the whole mass is generally in a state of active fermentation, with a sort of cauliflower head. It is then diluted with water and strained, and is mixed with sufficient flour to make a rather thin dough, which in about five hours rises to a fine *sponge*. This is again diluted with water containing salt, and is worked with the necessary quantity of flour into dough, and allowed to stand for two or three hours, when it rises, and is in a fit condition to be baked into loaves.

It can hardly be said that the potatoes are an adulteration in this case, for they do not ever amount to more than six lbs. to a sack of flour, which makes about 380 lbs. of bread, or 95 four-pound loaves. The salt is added to the extent of about four lbs. or more to a sack of flour, the proportions being regulated according to circumstances, for the object of it is to improve the quality of the loaf as regards whiteness, firmness, and flavour.

There is, no doubt, a slight loss of nutritive matters by this mode of vesiculation, for a small portion of the sugar of the flour is converted into alcohol and carbonic acid, but the quantity is so inconsiderable as to be undeserving of notice. The advantage of the process, however, is that it is an excellent test of the quality of the flour; for weak flour, or flour that has been injured by germination, or by keeping, will not stand the action of yeast, but will be either ropy, or sticky, or heavy, when baked into bread.

Another method of vesiculation is to generate carbonic acid in the dough by the action of an acid on bicarbonate of soda. Dr. Whiting's process, which was patented in 1836, was to mix the carbonate of soda with the flour, and then to act on it with a proper proportion of muriatic acid added to the water. He used from 350 to 500 grains of carbonate of soda to 7 lbs. of flour, and to this he added 2¾ pints of water charged with from 420 to 560 grains of muriatic acid. Other proportions are used by bakers who make unfermented bread; but in all cases the proportions should be such as to form common salt (which is the product of the action of muriatic acid on carbonate of soda)—the carbonic acid being liberated in the substance of the dough. Care should be taken that the muriatic acid is pure, for that found in commerce is generally highly charged with arsenic.

In 1845, another acid was patented instead of muriatic—namely, tartaric; and the various preparations called *baking-powders, custard-powders, egg-powders*, &c., are nothing but mixtures of tartaric acid and carbonate of soda, with a little farinaceous matter, the common proportions being 1 part of tartaric acid, 2 of carbonate of soda, and 4 of potato-flour or other dry starch, with a little turmeric powder to give it a rich yellow tint. When this is mixed with flour and wetted, it effervesces, as in the case of a common seidlitz powder, and so diffuses the carbonic acid through the dough.

Very lately, Mr. McDougall has proposed the use of phosphoric acid, as a mere natural constituent of food than the preceding, and this with an alkaline carbonate, forms the preparation which is known as *phosphatic yeast*.

A third process, which is now extensively used in the vesiculation of bread, is that of Dr. Dauglish, and by which the bread called *ærated* bread is obtained. It consists in the addition of a solution of carbonic acid in water to flour under pressure. The mixture is made in a closed air-tight vessel, in which the dough is well kneaded by machinery, and directly the outlet of the vessel is opened and the pressure thus removed, the gas escapes from the water, as in the case of an uncorked bottle of soda-water, and expands into little bubbles within the substance of the dough. By its expansion, also, it forces itself out of the mixing chamber, and rises into a spongy dough.

In all cases, however, where carbonic acid is generated within the dough by other processes than fermentation, the dough must be baked immediately or it will fall, and the loaf be heavy. Various contrivances have been suggested for helping the process of kneading, which is laborious, and sometimes not altogether cleanly work. Mr. Steven's hand-machine appears to accomplish this very well. It is in use in the Holborn union, where about 5633 lbs. of bread are made every week by one man and two boys; and they contrive to make ninety-six four-pound loaves out of every sack of flour (280 lbs.). The materials used on the average of a whole year being as follows:—

PROPORTIONS PER WEEK.

Flour	4129 lbs.	Which produce 5633 lbs. of bread, or 1408 four lb. quartern loaves.
Cones	140 „	
Potatoes	168 „	
Salt	68 „	
Malt	13 „	
Hops	1½ „	

The potatoes, the malt, and the hops are for the purpose of making the yeast or ferment for the bread.

But, by whatever process bread is made, it is necessary to observe certain precautions to ensure the production of a good loaf.

1st.—The flour should be from sound grain sufficiently rich in good gluten.

2nd.—The yeast should be sweet, and should show a lively action in the sponge.

3rd.—The dough should be well kneaded to insure the thorough diffusion of the gas, and to give toughness to the gluten.

4th.—The salt should be used in such proportion as to regulate the fermentation, and give firmness to the gluten, whiteness to the bread, and a good flavour.

5th.—The baking should be so managed as to insure the thorough heating of the loaf to the temperature of at least 212° of Fahrenheit, in order that the insoluble starch may be changed by the heat into soluble dextrine; and the crust should be light coloured and thin. This is best effected when loaves are baked singly, as on the Continent, and not in batches, as with us; for in the last case, the top and bottom crusts are thick and hard, and are frequently scorched, while the interior of the loaf is doughy and underdone.

Specimens of the different kinds of bread of England and the Continent are upon the table; and you will notice the dark colour of the *rye-bread* of Europe. I am indebted for these illustrations to the kindness of Mr. Twining, who has liberally placed the valuable collection of foods in his museum at our disposal. Here, also, is a sample of rye-bread supplied by Mr. William Ray Smee, who, in the interest of the poor, has had it made according to the formula of the Board of Agriculture of 1795. It consists of one part of rice and four parts of rye ground together and sifted in the usual manner. The meal is then made into dough with yeast; and when fermented is baked in the form of long rolls. The bread is very dark, like all rye-bread, and has a close texture, but it is agreeable to the palate, and is very nutritious. The great recommendation of it is its cheapness, for it can be made at less than a penny a pound, and is therefore a very suitable bread for the poor.

Those flours which do not contain sufficient gluten of the proper quality for fermentation or vesiculation, as barley-meal, oat-meal, Indian-meal, and the flour of peas and lentils, are best cooked by baking them in the form of cakes or biscuits—a practice which is as ancient as the time of the Patriarchs, when during the Passover they were commanded to eat unleavened bread. The chief food of the common people of Rome was a heavy kind of unleavened bread, like the present *polenta* of the Italians,

which is made of Indian meal and cheese. As in former time, biscuits and unfermented cakes are made from meal or flour mixed with water and baked; but the texture of the substance is close, and it is not easy of digestion unless it is thoroughly disintegrated. When biscuits are lightened by means of egg and sugar, with a little butter, they are much more digestible; and they are still more so when they are vesiculated or puffed up by means of a small quantity of carbonate of ammonia, as in the case of *cracknells* and *Victoria biscuits*.

The so-called *farinaceous foods* for infants are only baked flour, sometimes sweetened with sugar. The flour must be baked until it acquires a light brown colour, the temperature being about 400° or 450° of Fahrenheit. The granules of starch are then disintegrated and converted into a soluble substance, named *dextrin* — which by a further process of cooking or boiling, as in making pap, forms, when properly sweetened, a very excellent food for children. *Tops* and *bottoms* owe their value to the same circumstance—namely, that the farinaceous matter, which is so indigestible with infants, is broken up by baking into soluble dextrin.

All varieties of meals and arrowroots are easily cooked by stirring them into boiling water, or boiling milk, until they have the consistence of gruel or hasty pudding, and then boiling for a few minutes. In the case of Indian meal, rice, split-peas, lentils, and haricots, the boiling should be continued for a considerable time, and the whole grain should be previously steeped in water for many hours; for the starch and cellulose of these vegetables are not digestible, unless they are thoroughly disintegrated by cooking. It may be said, indeed, that all vegetables with dense tissues require prolonged boiling to cook them, for cellulose is not capable of digestion by man unless it is broken up by the action of heat—even starch is likely to pass through the alimentary canal unchanged, if it be not rendered soluble by fermentation or cooking. It is an important question, whether in utilizing starchy foods, it may not be advantageous to help their transformation, by allowing the grain to germinate to some extent, as in the process of malting, when the starch is changed into sugar. Mr. Lawes has examined this question, and has concluded, from his experiments on stock, that in the case of pigs and bullocks the fattening effect of the grain is not increased; but it may be different with the human stomach, where the transformation power is not nearly so active as with lower animals. Here, in fact, is an example of it: the food which Liebig recommends for infants is a preparation of malt with wheaten-flour and milk, to which a little bicarbonate of potash has been added; and the reputation of it in Germany, as an article of diet for children, is considerable. The preparation is made by mixing one ounce of wheaten-flour with ten ounces of milk, and boiling for three or four minutes; then removing from the fire and allowing it to cool a little. One ounce of malt powder previously mixed with 15 grains of bicarbonate of potash, and two ounces of water, are then stirred into it; and the vessel being covered is allowed to stand for an hour and a-half, at a temperature of from 100° to 150° Fahrenheit. It is then put once more upon the fire and gently boiled for a few minutes. Lastly, it is carefully strained to remove any particles of husk, and then it is fit for the child's food. The composition of the food, according to Liebig, is as follows :—

	Plastic matter. oz.	Carbonaceous matter. oz.
10 oz. milk	0·40	1·00
1 oz. wheat-flour ...	0·14	0·74
1 oz. malt-flour	0·07	0·58
	0·61	2·32

The relation of the plastic to the carbonaceous being as 1 to 3·8, which is the right proportion for the food of children.

The effect of the malt-flour is to transform the starch into glucose, and thus the mixture gets thinner and sweeter as it stands; and the bicarbonate of potash is added to facilitate the change, and to neutralize the acid constituents of the flour and malt.

Liebig's extract of malt is another such preparation for a quick assimilation of starchy matters.

Vegetable substances are occasionally fermented, either for the purpose of increasing the relative amount of glutenous matter, or for the purpose of rendering them acid. Potatoes, for example, as well as barley, wheat, and rye, leave a residuum after fermentation, which contains more gluten than the original substance, in consequence of the transformation of sugar and starch into alcohol; and although the residuum is coarse, and is hardly suited for human consumption, yet it is an excellent food for cattle: in fact in Germany it is often eaten by the poor.

When the process is carried still further, and the mass acquires an acid property in consequence of the formation of acetic, butyric, and lactic acids, various sour preparations are obtained which are no doubt useful in assisting the digestion of other foods. The ancient Romans had many such fermented substances which were not unlike the *Sauer-Kraut* of the Germans. This, as you know, is made from the leaves of cabbages, gathered generally in autumn, and from which the stem and mid-rib are removed. They are cut up into thin slices, and are placed in a tub or vat, alternately with layers of salt, until the vessel is full. It is then subjected to pressure and allowed to stand for 5 or 6 weeks (according to the temperature); the lactic fermentation is thus set up and the mass becomes sour. It is cooked by stewing it in its own liquor with bacon, pork, or other fat meat; and certain condiments, as dill or carraway, are added to improve its flavour. In Prussia, and in many parts of Germany, there is a similar preparation of fermented beans; and in Holland and the South of Europe, cucumbers are fermented. We also have our pickled vegetables in which acetic acid takes the place of lactic acid. All these preparations are no doubt aids to digestion, especially when the fibre of meat is tough, and contains tendons or hardened cellular tissue. This is especially so with salted meat, and, therefore, a little pickle is always a good and palatable addition to cold boiled beef.

Vegetable substances, as *tea*, *coffee*, *maté*, *cocoa*, *&c.*, the infusions of which are used as beverages, are prepared for commerce in nearly the same manner. When taken from the tree, and while in a fresh condition, they are allowed to undergo a moderate kind of fermentation, and they are then dried and roasted. In the case of tea, the roasting operation is performed during the process of drying and curling, by heating the leaves upon wire sieves held over a charcoal fire, but cocoa and coffee are roasted in metallic cylinders, which are kept revolving over a clear fire—coffee being roasted until it is partially charred, and has lost from 14 to 20 per cent. in weight. By this means the aroma or volatile oil, is in each case produced, and there is also an empyreumatic change in the astringent acids, the sugar, the gum, and the starch, whereby extractive matters, varying in amount and quality, according to the degree of heat, are formed. Schrader has examined the subject in respect of coffee, and has ascertained that the following are the proportions of the several constituents in raw and roasted coffee:—

	Raw Coffee.	Roasted Coffee.
Peculiar coffee principle ...	17·58	12·50
Gum and mucilage	3·64	10·42
Fatty matter and resin ...	0·93	2·08
Extractive	0·62	4·80
Woody tissue and cellulose ...	66·66	68·75
Mixture, &c.	10·57	1·45
	100·00	100·00

Infusions of tea and coffee should be made with boiling water, but they should never afterwards be boiled, for the aromic principle is very volatile, and would be thus lost; besides which a decoction of tea or coffee is disagreeably bitter, on account of the solution of the coarse forms of extractive matter. Soft water also extracts these matters,

and, therefore, appears to give a stronger infusion than moderately hard waters, but it is always at a sacrifice of delicate flavour. Excellent tea is made in London with water of 14 or 15 degrees of original hardness, and of about 5 degrees when boiled. This was a subject of investigation by the Government Chemical Commission (Professors Graham, Miller, and Hofmann), who were appointed in 1851 to inquire into the chemical quality of the water supply of London; and they reported, that, in their experiments they found, that tea made from the boiled London water of 5 degrees of hardness, could not generally be distinguished from tea made with water of 2½ degrees only; although a delicate palate would recognise a slightly increased bitterness without any enhancement of flavour in the latter. It would seem, indeed, that moderately hard water makes the best flavoured tea, provided it is allowed to stand upon the tea sufficiently long. In the case of the Greenwich pensioners the tea was made from water of 24 degrees of hardness before boiling, and 18·6 degrees after; but the infusion was maintained for half-an-hour, by surrounding the vessel with a steam case; and thus an excellently flavoured tea was obtained. The Commissioners indeed truly remark, that "where any great loss of strength of tea infusion has been observed in passing from a soft water to a harder, it may be probably referred to the circumstance that the mode of infusing it has not been properly adapted to the hard water; and then there is doubtless some waste of tea." Lake waters have been a good deal extolled on account of their softness, and supposed fitness for making tea, solely because they happen to produce a deep coloured solution, which conveys a false notion of strength, but, in reality, flavour is always sacrificed for the mere look of the thing, there being no increase of physiological or dietetical property. The Chinese, who are very good authorities on this subject, never use either very soft or very hard waters, for their rule is to take the water of a running stream—"best from the hill side, and next from a river." We may conclude, therefore, that water of from four to seven degrees of hardness, after being boiled, is best suited for infusions of tea and coffee; for such water dissolves the aromatic and physiological constituents, without extracting the disagreeable bitter principles. In the case of coffee, in fact, a little acid, as a portion of lemon juice, improves the flavour notwithstanding that it adds to the hardness of the infusion. Experimentally it is found that infusion of tea and coffee are strong enough when the former contains 0·6 per cent. of extracted matter, and the latter 3 per cent., so that a moderate sized cup (5 oz.) should contain about 13 grains of the extract of tea, or 66 grains of coffee. These proportions will be obtained when 263 grains of tea (about 2½ teaspoonfuls), or 2 oz. of freshly roasted coffee are infused in a pint of boiling water; and the amounts of the several constituents dissolved are about as follows:—

	Tea. Grs.	Coffee. Grs.
Nitrogenous matters	17·2	44·0
Fatty matter	...	3·0
Gum, sugar, and extractive ...	31·7	103·2
Mineral matters	9·1	22·8
Total extracted	58·0	173·0

So that tea yields to a pint of fresh water, about 22 per cent. of its weight, and coffee about 20 per cent. Lehmann found that only 15½ per cent. of tea was dissolved by water; whereas, Sir Humphrey Davy estimated it at 33½ per cent. No doubt the quality of the water, as well as that of the tea affects the results, for distilled water will extract from 40 to 44 per cent. of black tea, and nearly 50 per cent. of green, but for all this, about 22 per cent. is a good average.

Tea is generally measured into the tea-pot by the spoonful, and Dr. Edward Smith has made a curious inquiry into the average weights of a spoonful of different kinds of tea. The results are here shown:—

WEIGHT OF A SPOONFUL OF TEA.

Black Teas.	Grs.	Green Teas.	Grs.
Oolong	39	Hyson	66
Congou (inferior) ...	52	Twankay	70
Flowery Pekoe ...	62	Fine Imperial ...	90
Souchong	70	Scented Caper ...	103
Congou (fine) ...	87	Fine Gunpowder ...	123

From which it would seem that from three to seven teaspoonfuls of black tea, or from two to four of green are required for a pint of infusion of the strength already given.

Cocoa is best made by boiling the mixture for a little while, for it nearly always contains a large proportion of starchy matter, which has been added to dilute the rich fat of the cocoa. Indeed, cocoa contains so much butter or solid fat (from 48 to 54 per cent.), that it is necessary to reduce it with some easily digestible substance, as starch, lentil powder, carageen moss, Iceland moss, sugar, &c.—hence the various preparations of it called *granulated cocoa, soluble cocoa, chocolate, &c.*, the processes for making which I will briefly describe. When the berry is roasted and is cold, it is passed through a machine called a "kibbling-mill," which deprives it of its husk, and of the thin skin which surrounds the kernal or nib. If the nibs thus cleaned are ground in proper mills, they form the variety of cocoa called *flaked cocoa*, but if other preparations are to be made, the nibs are ground between heated rollers or otherwise, until they form a smooth paste, when the diluting substances are mixed with it and are thoroughly incorporated. If *soluble cocoa* is to be made, the diluting material is sugar with some kind of arrowroot, as tous les mois, maranta, curcuma, &c. If *chocolate* is required, the diluting material is sugar only, with some flavouring agent as Vanilla, and if fancy preparations as *carrageen moss cocoa, Iceland moss cocoa, lentil cocoa, &c.*, are required, then these are incorporated. *Granulated cocoa* is a preparation of cocoa, with sugar and starch, so ground as to form a coarse powder, in which the particles of broken cocoa are covered with a layer of sugar and starch. It is obvious that whenever the mixture consists of starch or other farinaceous substance, the solution of the cocoa preparation must be boiled; but when sugar has been used, as in chocolate, which is the most ancient preparation of it, the combination is such as to require no culinary treatment; or, at most, the action of boiling water or boiling milk.

It is remarkable that, although cocoa is much less used than either tea or coffee, yet it was known in Europe a century before either of the others. As early, indeed, as 1520 it was brought from Mexico by Columbus, who found it the common beverage of the people; and when Cortes was entertained at the Court of the Aztec Emperor, Montezuma, he was treated to a sweet preparation of cocoa, called *chocollatl*, flavoured with vanilla and other aromatic spices, and served to him in a golden vessel. The Spaniards thus acquired a knowledge of the berry and of its chief preparation, which they kept secret for many years, selling it very profitably as chocollat to the wealthy and luxurious classes of Europe. It was, however, an expensive preparation, and did not come into general use until long after the public coffee-houses of London were established. The earliest notice of it, according to Hewitt, is in Needham's *Mercurius Politicus* for June, 1659, wherein it is stated that "chocolate, an excellent West India drink, is sold in Queen's-head-alley, in Bishopsgate-street, by a Frenchman, who did formerly sell it in Gracechurch-street, and Clements Church-yard, being the first man who did sell it in England;" and its virtues are highly extolled. This was about five years after the London coffee-houses had been established; for the first of them is said to have been opened in 1650 by a Levantine named Pascal Rosee, in St. Michael's-alley, Cornhill; and a year after they were opened in Paris, and in Holland. In 1660 they were so much frequented, and coffee was so largely drank, that they were made a source of revenue, a tax of 4d. a gallon being levied on all the coffee drank in

them; and three years later they were regularly licensed at the Quarter Sessions, like common taverns. In 1668, when Ray, the distinguished naturalist, published his History of Plants, he tells us they were as numerous in London as at Cairo; and at last they became so great a nuisance, on account of their political associations, that in 1675 Charles the Second endeavoured to suppress them by proclamation, calling them seminaries of sedition; but the keepers of them were sufficiently powerful to make him revoke the prohibition. The history of these houses would form a curious chapter in politics and literature, for they are associated with the earliest development of free political discussion, and with the greatest names in English literature. Among the oldest of them is the "Grecian," where Shakespeare and Rare Ben were frequent visitors; and hardly less ancient is "Wills," where Dryden held forth with pedantic vanity, and where the foundation was laid for that critical acumen which soon became a distinguishing feature in English literature. In the city, too, there was Garraway's, where not only was tea first sold, but where, in Defoe's time, "foreign banguiers," and even ministers resorted to drink it. "Robins" and "Jonathans," and the "Cocoa-nut Tree," in St. James-street, were also famous, and had their distinguished followers.

(To be continued).

THE ORATION DELIVERED AT THE NINETY-FIFTH ANNIVERSARY OF THE MEDICAL SOCIETY OF LONDON.

By W. F. TEEVAN, B.A., F.R.C.S.,

SURGEON TO THE WEST LONDON HOSPITAL, SURGEON TO ST. PETER'S HOSPITAL, LATE LECTURER ON ANATOMY AT WESTMINSTER HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—We have met together this evening to celebrate the ninety-fifth anniversary of the Medical Society of London.

What greater compliment can I pay the Society than the bare enumeration of its years? That fact alone trumpets forth more eloquently than any words of mine can, its vital strength, its genuine worth, its great past, its useful present, and its promising future.

Surely each one of us will say to night as we drink the great toast of the evening,

"Floreat in æternum."

It is my pleasing duty to-day to congratulate you all on the present state of the Society. Under the auspices of our worthy and respected President, whose kindly disposition and urbanity of manners, carry us all captive, the society has received an accession to its numbers, so great as to be almost unparalleled in its annals; such a fact alone shows how very much we have run into a debt of gratitude with him.

The financial condition of our Society is most healthy, and such as to be regarded with the liveliest satisfaction by all its friends.

During the past year we have had an array of papers such as will bear favourable comparison with any year, and the session has been terminated by a series of Lettsomian lectures so admirable as to be beyond all praise.

The regret which we all feel this evening in parting with our President is greatly lessened by the knowledge that his seat will be filled by no unworthy successor, but by a gentleman whose scientific reputation is European.

Under the guidance of our new President fresh fields will be opened up in which we may exercise our usefulness, and I trust his great powers will be exerted in occasionally recommending to the Society committees to investigate, under his captaincy, subjects of great public and professional interest; and that he will thus be afforded opportunities for the employment of his great mental powers, scientific attainments, deep research, and suggestive penetration.

And now, gentlemen, let me personally thank you for the very great honour you have conferred upon me. I feel that the position of your orator is a difficult one. The society in its wisdom and generosity, leaves him perfectly unfettered as to the choice of his subject; and hence it is that his post is one of very serious responsibility.

Now, I cannot but help thinking that one of our national failings for some years past has been a disinclination on the part of men placed in public offices to accept their responsibilities, to do their duty to the best of their ability, and then to shrink from no results. Be it my lot this evening to do what I, in my humble judgment, consider best to be done, and to leave the rest in other hands. Although on an occasion like this it is desirable that the discourse of your orator should be ornamental, yet I think I am not mistaken when I say that it is still more to be wished for that it should be useful.

In our profession there are few, but very few occasions, on which we are able to depart from the routine of our daily work, and take a glance around us to see how we are getting on. Hence it is that I look upon these opportunities as very valuable; for we, to-day, pause in our career, make our annual stock-taking, and see the state of the debit, and credit sides of our account; and, as we are all disposed to be in the best of humours on these festive opportunities, we are better able to take council together. I know that we all here have but one object in view—the welfare of our profession—hence, I feel assured that no remark of mine will be misinterpreted, but, on the contrary, be received, as it is given, in a spirit of kindly charity and friendly brotherhood.

Gentlemen, I will now proceed to take a hasty glimpse of our profession, and I think my time will be best employed not in complimenting ourselves on what has already been accomplished, but in ascertaining what yet remains to be done, and inquiring into the best means for fulfilling the ends in view.

I would first cast my eyes on that all important subject, medical education. It is to us the irrepressible object, and it is constantly starting up to view when least expected. Within the last few weeks the point has been very forcibly brought before us through the masterly, philosophical, and very practical address of Mr. Simon to the Medical Teachers' Association. There can be little doubt that his views are thoroughly shared in by all the younger and thinking portion of our community. Having for ten years been brought into intimate relationship with medical students in my capacity as teacher, I think I am able to gauge the present deficiencies of medical education. You will, perhaps, therefore, be anxious to know what your orator thinks of Mr. Simon's suggestions. He has only to say, that he fully endorses all that gentleman has recommended. I must not here forget to state that a previous orator of this Society has forestalled Mr. Simon's opinions. In the oration given four years ago by Dr. Thudichum occur these very pregnant words—"The greatest deformity of our educational system, compulsory attendance upon lectures and courses of a practical kind, will have to be abolished. The severity of examinations, on the other hand, will have to be increased. The law will say to the student—You may acquire your knowledge where and howsoever you please; but we demand of you full and sufficient proof of your possessing the knowledge which is deemed requisite for the practice of the medical profession. To the licensing authorities the law will say—"It is your duty to satisfy yourself by written and oral examinations, by every practical test that can be applied in the dead-house, the sick-ward, or the laboratory, of the competency of the candidate who comes before you to obtain your license, and in no case are you authorized to assume the competency of a man in any branch of learning, simply because he is certified to have sat so many hours on the college benches, or to have walked up and down the wards of a hospital on so many days." Much and more might I add. Suffice it for me to say, that Dr. Thudichum has already given to the world the pith and essence of Mr. Simon's address.

In years to come, when this reformation, so devoutly to be wished for, has taken place, with what pleasure and pride will not our successors in this Society look back to

the time when the seeds of such good fruit were sown by this Association. May I, like Apollo, water that which has already been planted. I cannot here forbear to pay a passing tribute to those with whom I have spent some of my happiest time, and state how easy and agreeable has been my task of teaching medical students. Their conduct as a body is most exemplary, and when we consider the very many temptations by which they are on all sides surrounded, we cannot fail to be struck with the extreme variety of any instance of reprehensible conduct amongst them ; and if the good relationship which ought always to exist between the teacher and the students is in any way impaired, it will generally be found that it is due rather to some want of taste, judgment, or discretion on the part of the teacher rather than to any mulish or bearlike proclivities on the part of the student.

Can any one say that medical education, as now conducted, needs no reform? The very existence of an individual capable of making such an affirmation would be a curiosity. Then, again, do all our great examining bodies do ample justice to the British public? Do they supply them with an article which is always as it ought to be? or is it not a fact that through the inefficiency of the examination of some of our institutions, incompetent medical men are occasionally let loose on an unoffending people.

In order clearly to get at the root of the present imperfections in medical education, we must, *firstly*, look at the examining boards, who are virtually the Government Inspectors ; *secondly*, at the great manufactories of medical men ; and, *lastly*, let us inspect the raw article—the medical student—and see if there is anything wanting there.

We have in this country a *number* of examining boards so enormous as to be, I believe, unparalleled in any country. In what way does that injure our profession, and tend to lower the standard of the final test. In this way the evil acts—it is a notorious axiom in warfare that it is useless to besiege a town unless it can be entirely surrounded, and the enemy's communications cut off, for so long as the enemy can enter or depart at pleasure, he can in no way be forced to surrender, and the prospect of his capture is indefinite. We saw a remarkable instance of this in the prolongation and unsatisfactory termination of the Crimean campaign. So often as the allies attacked the town and inflicted any damage on the enemy, so often was he able to send into the town fresh forces and thus recruit himself, inasmuch as his communications were not cut off, and thus it was that after all the allies only took part of Sebastopol, and afforded Prince Gortschakoff an opportunity of performing one of the most skilful feats of modern times—that of withdrawing his entire army intact from under the very noses of the allies without their knowledge or consent.

The entire body of medical students may be likened to an army in a town imperfectly besieged. They want to escape from their captivity as students, and emerge on to the golden plains of practice, and the examining boards do not intend to let them pass the lines until they have afforded certain evidence that they can be trusted. Now, what is the use of a splendid brigade, commanded by able officers, attacking one part of a besieged town if another part is assaulted by an inferior force with indifferent officers, *which* allows the enemy to escape safe and sound with his booty. So it is in our profession. What is the good of the standard of examination being kept very high at one institution, when the rejected student can, in a few days later, pass the examination of another board.

So long as students can slip through as they do now, so long will anything like perfection be unattainable. It is a notorious fact, and one which is occurring every day, that a student will go up to an examination, get plucked, and in a few days afterwards present himself to his astonished fellow-students with the diploma of another institution in his pocket. This fact alone would show what very grave offence lies at the doors of some of our examining bodies. Thus, therefore, the multiplicity of boards, each being endowed with the power of granting a license to practice, is in itself a very serious injury to our profession.

The competition between various boards acts injuriously in many ways, but chiefly by lowering the general standard of the final test. Examiners are unfortunately only too well able to recognise the inexorable logic, that a high standard of examination means so much less for their breeches-pockets. How can this evil be remedied? I see but two ways. Either by the State recognising the diploma granted by one examining body only, and thus forcing all to pass it, or else, by all the examining bodies agreeing to require a very high standard of proficiency, and in order that the same might really be carried out, it would be requisite for the Examiners of the College of Surgeons of London to go to Edinburgh to examine the candidates for admission to the College at that place, and for the Edinburgh examiners to come to town. In this way a fair examination might be established, and the very obvious objection to my proposition avoided, and thus a great step would be gained on the present order of things. I would here devote a few words to that particular body with which we, as Englishmen, have chiefly to do. I mean the College of Surgeons of England. That institution, placed by the Government of this country in a most responsible position, and having the twofold duty to perform of providing the public with fit and competent practitioners, and at the same time cherishing and elevating the status and scientific reputation of its alumni, has not acted up to its high mission, and hence has drawn down on its head severe, but merited castigation. I have, on an occasion like this, no wish to enter on to the past of that institution, for did I do so, I am sorry to say I could find but little to recommend to your praise. Therefore, let the curtain drop on the past, and, as the Council seems in some degree awakening to a better state of things, I would, as a member of the English public, ask it these questions—What right have you to let loose on me a man who is utterly incapable and incompetent? What right have you to cause my death to take place at the hands of such man, either by an act of omission or commission on his part? I am quite sure the Council would reply that it had no such right. I would then ask it—How, then, is it that you do allow incompetent men to pass your examinations? I will not put it to the pain of answering this question, but I will answer it myself. The reason why incompetent men are able to pass your examinations is, because your examinations are inefficient, and are no tests at all, or at least very bad ones, as to a man's efficiency. The Council may, perhaps, deny that its examinations are as I have represented them to be. Let them digest a few facts which I will now relate, and of which I have personal knowledge.

A gentleman, whose entire knowledge of anatomy, as obtained by dissection, amounted to one week's rough dissecting on the lower limb, presented himself at the anatomical examination at the College of Surgeons, passed it, and in due time became a member. Some of you would, perhaps, be anxious to know how he accomplished it. Six months before the examination he placed himself in the hands of a grinder, and the three entire days before the examination he passed in the dissecting-room, going from table to table with an able student, who demonstrated to him the various parts exposed. Here, then, gentlemen, was a case of a student utterly deficient allowed, by the carelessness and inefficiency of the examination, to pass the College and obtain a license to practice. I maintain that, had the examination been conducted as it ought to have been, this gentleman could never have passed. As it was, he came down to the dissecting-room after he had got through his examination, laughing in his sleeve at the examination, and maintaining that he had worked a great deal too hard for it, and persisting that three months' preparation, instead of the six he had given, would have been amply sufficient.

Another instance. A gentleman who had passed the College of Surgeons became a candidate for a certain ap-

pointment. He was called upon to give some evidence of his anatomical and surgical skill, and was requested to tie the common carotid artery on the dead subject. Instead of the artery he tied the external jugular vein. He was then desired to tie the common femoral artery, and instead of the artery he tied the saphena vein. It was thought well to give him some further chance, but he still persisted in tying the veins instead of the arteries.

Some more facts. Six gentlemen, who had all obtained the diploma of the College of Surgeons, were candidates for certain appointments, and were requested to operate on the dead subject. Each applicant had given to him a large artery to tie. After each gentleman had performed his operation, the examiner inspected the parts and then reported, that if each of these gentlemen had been operating on the living instead of the dead subject, he would in each instance have killed his patient.

So much, gentlemen, for the efficiency of the present examinations at the College of Surgeons. But how can we expect efficient examinations conducted by inefficient examiners? With the exception of surgery, I am not aware that the examiners, as a rule, possess the requisite qualifications on their part to ensure efficiency. How can a man who has not practised anatomy for, perhaps, nearly half a century be deemed fit to examine? He is manifestly unfit.

Then, again, we should be glad to know what evidence there is that the present examiners know anything about microscopical anatomy. As to examinations in surgery—a man who learnt his surgery half a century ago is very likely to examine according to what surgery was in his days, and not what it is in ours. Hence it is, that there has always been an inclination on the part of the examiners of the College of Surgeons to give catch questions, which means something I would not like to say. However, I believe better things are in store. The Fellows of the College are now looking after their own affairs, and I trust that before long the Council will be purged of its obstructives, for I know there are men amongst them of enlightened views, and anxious to bring the College in harmony with the requirements of the day. The first step the Fellows must insist on is the publication of the minutes. If the Fellows, as a body, undertake to return no one who is not pledged to obtain the publication of the minutes, we shall soon get them, and thus know who is for us and who is against us.

The College of Surgeons seems never to have realised the fact, that it is for it to fix what the standard of the final test must be. I state most emphatically, that the body of the students will educate themselves up to the standard required by the College, but no further will they go. Why should they? When the mature heads of the Council have deemed that what they ask of a man is amply sufficient to make him a good practitioner, why should the student or teacher carp at the examiner and demand a more strict examination. Would it not be unseemly for him to do so? What would the venerable gentlemen say, if their private patients put their prescriptions aside and demanded stronger doses? Why they would immediately exclaim—"Do you think you know better than we do."

I would, finally, be glad to know how it is that the College of Surgeons, who are virtually Government Inspectors for the department of Medicine, differ so materially and sadly from all the other Government Inspectors. In all other departments we find that when any article, whether it be a soldier, sailor, iron, or wood, which is required for the public service, the Inspectors of the Department of the article required, meet and agree upon the quality the article about to be supplied shall be of. Having done this, they advertise minutely the requirements which the article must fulfil before they will pass it, and then they invite tenders for the supply of the same. They do not care whether the article is made in Kent or Surrey, by Brown or by Jones, all they demand is, does the article evince the quality they require.

No one can doubt but that in time the Inspectors of Medicine will do the same as the Government Inspectors for the other departments do with the best results.

The examiners to the Naval and Military Boards have evinced, to their honour be it said, a keen sense of the responsibility of their position, and hence they consider that because a student has passed the College of Surgeons, that he is not therefore necessarily fit to practise on those costly articles—British sailors and soldiers—and they consequently do all in their power to repair the shortcomings of the College of Surgeons.

And now, gentlemen, having made these few remarks in no unfriendly spirit towards the Council of the College of Surgeons, for many of whom I have the highest respect, I will proceed to take a glance at the teaching in this metropolis, and see if there is anything which admits of improvement.

I much regret the recent action of the Medical Teachers' Association in reference to attendance on lectures. Such a procedure argues a want of knowledge of human nature. It is the old error repeated over again for the thousandth time, for I hold it is just as unphilosophical and unwise to attempt to make students studious by forced attendance on lectures, as it is to attempt to make young men religious by forcing them to attend religious observances. What is it that makes young men so little in love with religious services? Is it not that ecclesiastics have thoroughly nauseated them with a dry formularism during their school and college days? That Apostle was indeed a philosopher who said—

"The letter killeth, but the spirit giveth life."

By making attendance on lectures compulsory, the grave risk is run of rendering students disgusted with that which ought to be a labour of love.

I maintain that the only and proper way in which students can be influenced for good, is to infuse into them a spirit of love for their profession—once get a student to love his profession, and all will go well. He will require no looking up or compulsory attendance on lectures, and if, on the contrary, he cares not for his studies, no amount of forced attendance will make him love them more, but will cause him to still more detest the burden that galls his back.

Some people do not seem to realise the fact that Medical students are not mere school boys, but reasoning, thinking, intelligent young men, who are quite capable of appreciating the fact, that as they make their beds, so they must lie on them, and my remark applies with especial force to English students, for they above all others in the world, have an eye to the main chance. I should be glad to know why a student should be compelled to attend the lecture of a teacher who cannot teach him anything. It is perhaps rather a startling assertion to make, but I maintain that no lecturer on anatomy can, to any purpose, teach more than twenty students at the same time. I hold that all lectures which are not demonstrative are useless, and hence it is that every lecturer ought to assure himself that each of his class can not only hear what he says, but also see what he demonstrates. In the larger schools the majority of the students get up their knowledge of anatomy without any assistance from the lectures on anatomy. How can it be otherwise? Let anybody sit in the fourth or fifth benches, and then say how much he can see of the dissected parts. Practically nothing. But you will perhaps exclaim, "see how the operating theatre is crowded on operating days." So it is. But what, I ask, do the majority of the spectators see of the operation of lithotomy? Why, they see everything except the operation. Under the present regulations the student is burdened with a most cumbersome and useless machinery, which forces him to select one school, and to take it for better or for worse. Thus he loses his liberty of action, the better promptings of his heart are stifled, and he leaves London, not feeling that he must for ever remain a student if he would do his duty properly, but thanking himself for having at last escaped from the drudgery of his school.

It must be confessed that the quality of teaching not

only varies in different schools, but in different departments of the same school, so that one school has a first-rate teacher of clinical medicine perhaps, and an indifferent teacher of clinical surgery. That such is the case we have abundant proof. Go to any school in this metropolis, and you will find the clinique of one teacher crowded, whilst that of another is deserted. In fact, students are constantly to be heard saying, "What is the use of my going round with Mr. So and So. I cannot learn anything from him." Some teachers are extremely communicative, and encourage students to ask questions, and to take an interest in the case; others are reticent and cut short any attempt on part of the young student to obtain information. Then, again, clinical teaching must be regarded as defective at many of the larger schools. There are some teachers to whom I would say, "How many students have you in your class?" and the answer would be "50 or 100." "And pray, how many students can be taught at once and the sametime, at the bedside?" "Not more than a dozen at the outside." "And what provision is made for the other students?" "None at all."

At one time I was strongly opposed to the smaller schools of medicine in this metropolis, and considered it would be well if they were abolished, but having had experience in teaching in a large and a small school, I must give my preference, in the present state of things, to the smaller school, for in it the student is brought, on his very entry, into close connection and daily intercourse with his teachers. In large schools many of the students do not get five minutes conversation with a single teacher during an entire session, whereas at the smaller ones the teachers are conversant with the habits, wants, and feelings of every student. With medical students a little kindness goes a great way, and I have always observed when a thoroughly efficient teacher takes a personal interest in the members of his class, the number of absentees is reduced to zero.

One evil that is creeping into clinical teaching, and impairing its efficiency is, that many of our general physicians and surgeons are specialists, and hence they convey no weight or no authority with students, beyond their particular selections. Students are beginning to exercise the same freedom of choice as regards their presence or infrequency of attendance on the lectures of a teacher's course, as they do when they fix upon who is to attend them for their occasional complaints. If a student has the misfortune to have a stricture, he goes to a surgeon whom he calls "a stricture man," when his chest is bad he goes to "a chest man," when his kidneys are out of order he goes to "a kidney man," if he squints he goes to an "eye doctor," if he sneezes too much he goes to a "nose man," if his throat tickles him he goes to a "throat man," and if, when he is coming to town by rail, he happens to be unlucky, and gets into a collision, he goes next morning to a "railway man." Now, all this is only right and proper, but the student should, in all fairness, be enabled to make the same selection as regards his teaching as he does regarding his doctor; but as long as the present regulations obtain he cannot do this, inasmuch as the teachers he would select are scattered over the metropolis.

When our present wretched anti-English system of rules and ordinances, monopoly and protection, is abolished, we shall find that students will go to that man who can teach them best, a thing they are now practically unable to do.

I maintain that the privilege of selecting the man from whom he can most profit, is the birthright of every English student, and of this right he has been deprived by the present *strait*-laced system.

When that day comes, which is I trust not far off, when the student will be as free as such as he is as a man, we shall find only thoroughly efficient teachers in this metropolis, because the incompetent ones will die of pure inanition—their benches will be deserted, and their supplies cut off. In this way the student will, of his own unaided efforts, be able to set all things to rights. Once strip him of all the useless machinery under which he now groans, and you will at once see what a splendid fellow he is, and what good running he will make in the race of life. At present the medical student is like a high mettled racer with a bad rider on his back, who is worrying him and fretting him, and won't allow him to have his head. I would say to the rider, "The best thing you can do is to get off his back, or otherwise you may goad him into shaking you off. You have given abundant proof that you do not understand him, and that you are unable to ride him."

Another glaring defect in the present regulations is the period fixed for studentship. If four years be a right and proper time for some, it is evidently much too long for a few, and much too short for others. To fix a stated time for the duration of a student's education, is about as rational a proceeding as if the College of Surgeons were to issue an edict ordering all the medical students of London to have their breeches cut the same length. The Council seem to imagine that all men are of equal mental and physical power, and live under the same conditions, whereas it is a notorious fact that the Deity has made no two men alike. No one can, therefore, say what time is requisite to make a man fit to exercise his profession, and hence the absurdity of gauging all men with the same measure. I, finally, strenuously contend that examinations ought to be made the test, and the only test, of a man's proficiency. What does it matter when, where, or how, a student obtains his information, provided he does obtain it, and if he has not got it what do all attendances on lectures profit him? Let us convert students into living realities, and not reduce them to museum preparations as they too often are now.

Let the University of London, the champion and vanguard of all improvements, do for medicine what it has done for arts. It has allowed the candidate for the Bachelor of Arts degree to throw of his shackles. May it permit the candidate for medical degrees to do the same.

And now, gentlemen, having taken this hasty and imperfect sketch of examiners, teachers, and students, let me look for a few minutes at the patients—Can their condition, as recipients of relief, be improved? Can we do more for them than we are now doing? Is there anything which we ought to grant them which they do not now enjoy? I answer, there is. I would draw attention to two glaring defects in our hospital administration. *Firstly*, the system of admission by letter; and, *secondly*, the enormous loss of time which the out-patient incurs in obtaining advice and medicine. With a few noble exceptions the admission into our hospitals is, for cases of disease, procurable by letters of recommendation only—a system which, I believe, obtains in no Christian country except our own, and the hardships of which are known only to the poor wretch who has to go about from place to place begging for a letter. I maintain that any other, or more recommendations than poverty and disease, are immoral and the system, as at present existing, will, in subsequent ages be looked back upon with disgust. When subscribers to charitable institutions fetter their charity with such absurd conditions that the poor sufferers are obliged to go about limping for letters, I hold that their charity avails them not. What a mockery of charity, to force a destitute creature to expense or pain in order to procure the badge of his slavery!

The evil acts in this way. Supposing, for instance, the wife of a labouring man with a large family is ill and wants to get into a hospital; she is obliged to get a letter, and for that purpose she must either pay some one to go and look for a letter, or go herself and pay some one to stop at home to look after her children.

The result of all this is that subscribers have taxed heavily those they relieve, both in time and money. Then again the system of admission by letter increases the amount of disease and consequent mortality amongst the poor.

I need only mention one instance to condemn the system. A poor woman brought her child, which was suffering from purulent ophthalmia, to a hospital. The child's eyes were

perfect. Three weeks afterwards the woman again brought the child. Its eyes were destroyed. It was a rule of the hospital that no patient could be seen a second time without a letter. There was an exception, however, in favour of diseases of the eye. But what did the poor woman know of exceptions—she could not even read. All she knew was that letters were required and it took her three weeks to get a letter, during which period the child's eyes were spoilt. I am sure the majority of subscribers to a hospital are both enlightened and humane, and the abolition of admission by letter is one of those things which has only to be asked for to be granted.

The second evil is that at present patients are kept a great length of time which they cannot afford to lose, waiting for advice and medicine. The majority of the out-patients' rooms are crowded from 12 P.M. to 4 or 5 P.M. and each patient is kept on an average at least two hours before he can get both advice and medicine.

The result is that a working man cannot make use of a hospital, for no employer will permit him to absent himself for the requisite period without a deduction from his wages. Hence a working man goes on till he drops, and so, largely increases the bills of mortality. If instead of a brace or so of dispensers at hospitals, there were a dozen put on the above evil might be considerably lessened, and the usefulness of our hospitals proportionably increased.

I would be glad to know where the working man with a pound a-week to live on, and a wife and children to keep, is to go when some slight ailment attacks him.

He cannot go to a hospital, because the time fixed for seeing out-patients is during his work hours, when, as I have said, the employer will either not let him go or else make a deduction from his wages. He cannot afford to pay a doctor, and so this honest fellow—one of those who has contributed to make this country what it is, is left totally unprovided for in case of slight illness.

If working men could go after their work was done to a hospital, when suffering from any light complaint, I maintain that it would be an enormous boon to them, that it would enrich the nation and greatly lessen our national mortality.

Why should there not be appointed at every hospital an additional assistant-physician and assistant-surgeon to see the patients in the evening after they had done their work?

Much and more there is, gentlemen, which I would have wished to touch on, but time will not permit, and I have therefore contented myself with touching, feebly and imperfectly perhaps, but still in earnestness, those evils which seem to me to require immediate attention and remedy.

And now, gentlemen, in conclusion, let me congratulate you all as to the way in which Man is getting on in this world. From whatever point we regard him, wherever we may look, we see on all sides signs of gigantic progress. So great is it, so swift is it, that we, passengers, are almost unable to discern the objects brought into view. The future historian who shall calmly and dispassionately sit down to write the record of our age, will alone be able to measure the immensity of its progress.

All the world over, far above the din and turmoil of life, we hear but one sound—that happiest of all sounds—man breaking his chains; and this poor wretch, this worm of the earth, as he has been called, which has been bled, beggared and oppressed for countless ages, is now proclaiming in no faltering or uncertain tone, his great and indefeasible right to his magnificent heritage and splendid destiny. What is all history but the narration of the struggle of man against self-constituted and self-imposed authority? At last he has struck off his shackles, he breathes freely, and, with head erect, he may now indeed put his hand on his breast, and, with truth, exclaim:—

"Homo sum."

Hospital Report.

MATER MISERICORDIÆ HOSPITAL.

ACUTE PLEURITIS, WITH EFFUSION.

Under the care of Dr. HAYDEN.

ANNE GAFNEY, aged 26 years, a servant, admitted into Hospital February 11, 1868. She stated that on Friday, January 31, whilst engaged in baling out water, which had found entrance through the roof of her master's house, stript during the rain-storm of that night, she caught cold, and was attacked with pain in the left side on the following day. She gave little attention to this pain, endeavouring to perform her duties as house-servant for several days, during which she received no medical treatment of any kind.

When admitted she was pale and weak, respiration quick and embarrassed; pulse rapid and feeble. The left side of the chest was dull from base to clavicle, *but moved freely in respiration;* to the same extent vocal fremitus was abolished, and respiratory sound was absent, except along the spine and beneath the clavicle, in the former of which situations was heard tubular breathing, and in the latter a faint vesicular murmur. Over a space of about two inches, measured from the clavicle downwards, a squeaking vocal sound (œgophony) was heard when the patient spoke. Measurement of chest showed an increase of half an inch in the girth of the left side, as compared with the right; heart displaced to right of mesial line, and *heard* pulsating under right costal cartilages; decubitus dorsal, or diagonal. Directions were given that the left side of the chest should be painted daily with the tincture of iodine, and that the patient should have the following diuretic mixture, in doses of two tablespoonful every second hour, viz., infus. juniper ℥vii., spirit. ether nitros, spirits juniper, aa. ℥ss. Small quantities of whiskey, and light nutritious diet were to be given repeatedly, according to necessity.

February 18.—Over a space of about one inch below the left clavicle percussion-resonance is normal, and here respiratory murmur is heard; to an equal extent lower down there is comparative dulness, and here œgophony is audible. To have gr. iii ss. iodid. potass. in ℥i. aquæ camphoræ thrice daily; to continue painting with iodine; to be restricted in the use of liquids, and to have a sedative nightly, consisting of tinct. of hops and tinct. of hyoscyamus, of each ℥ss. in an ounce of water.

March 6th.—The patient has been out of bed for the last few days; she has recovered strength and colour; can now lie upon either side; dullness has all but entirely cleared up in front, but is still partial posteriorly; the heart has returned to its normal situation, where it is felt pulsating.

Dr. Hayden made this case the subject of a short clinical lecture, and after detailing the diagnostic symptoms and signs by which serous effusion into the pleura may be distinguished from pneumonic and tubercular solidification, cancer, inflammatory thickening of the pleura, &c., he directed the attention of the class to the specific value of the evidence furnished by the free movement of the affected side of the chest, mentioned in the record of the case, in establishing the differential diagnosis of acute pleuritic effusion upon a previously healthy lung, from the diseases above mentioned. He also stated that in cases of pleural effusion on the left side, causing dislocation of the heart to the right, the cardiac impulse is, according to his experience, frequently lost; and explained how this might be the consequence of the anatomical disposition of the left pleura with reference to the apex of the heart; in the state of health the impulse of the heart is felt in the left sub-mammary region, through the pericardiac and costal pleuræ; but when the left pleural cavity is distended with serous, or other liquid effusion, the greater portion of the heart, including its apex, being surrounded by a liquid medium, the apex beat is not communicated to the chest

wall. Hence, the precise situation of the heart can be determined, as in this case, only by the point of maximum intensity of its sounds. The impulse is, however, occasionally felt, as in a case lately observed, in which the heart pulsated below the right nipple. In such cases it would probably be found that, owing to some cause, such as unequal pressure on, or yielding of the mediastinum, the apex of the heart is pushed towards the right side to a greater extent than the remainder of the organ. Dr. Hayden also reminded the class that having watched the progress of the case from day to day, they were enabled to observe the gradual return of the heart to its natural situation, and, concurrently with this, the subsidence of the level of percussion, dullness on the left side of the chest; finally, he pointed out the efficacy of iodide of potassium, given in moderate doses, in such cases.

REPORT TO THE REGISTRAR-GENERAL ON THE METROPOLITAN WATER SUPPLY.

By Dr. E. FRANKLAND, F.R.S.

ANALYSIS OF THE METROPOLITAN WATERS FOR MARCH, 1868.

1 Companies.	2 Date and Place of Collection.	3 Temperature in centigrade degrees.	4 Total solid impurity in 100,000 parts.	5 Organic Carbon.	6 Organic Nitrogen.	7 Nitrogen as Nitrates and Nitrites.	8 Ammonia.	9 Total Combined Nitrogen.	10 Previous Sewage Contamination (Estimated.)	11 Total Hardness.
THAMES.										
Chelsea ...	4TH MARCH. Cab-rank, Horse Guards.	8·3	29·0	·187	·029	·262	·003	·293	2320	18·5
W. Middlesex ...	4TH MARCH. Cab-rank, Portland-road.	7·7	30·2	·136	·012	·314	·001	·327	2830	21·4
Southwark and Vauxhall ...	4TH MARCH. Barclay's Brewery.	10·0	32·6	·264	·032	·246	·001	·279	2150	19·7
Grand Junction ...	4TH MARCH. Cab-rank, Woodstock-street.	7·2	28·8	·202	·027	·278	·001	·306	2470	18·5
Lambeth ...	4TH MARCH. Cab-rank, Lambeth-road.	8·6	29·4	·289	·040	·248	·001	·289	2170	18·8
OTHER SOURCES.										
New River ...	4TH MARCH. Cab-rank, Tottenham-Ct.-Rd.	7·5	27·4	·059	·010	·256	·000	·266	2240	18·5
E. London ...	4TH MARCH. Slater's Lampblack Works, Old Ford-road.	7·2	30·0	·118	·022	·231	·001	·254	1990	20·5
Kent ...	2ND MARCH. Deptford Railway Station.	10·2	70·2	·093	·029	·399	·001	·429	3680	32·3
Loch Katrine ...	FEBRUARY, 1867. Glasgow.		3·28	·256	·008	·031	·002	·041	0	0·3
Lancaster ...	SEPTEMBER. Lancaster.		3·54	·157	·001	·036	·001	·038	50	0·1
Manchester ...	NOVEMBER. Manchester.		6·80	·242	·026	·001	·001	·028	0	2·7
Leicester ...	NOVEMBER. Leicester.		23·7	·506	·020	·001	·001	·022	0	13·4
Preston ...	DECEMBER. Preston.		14·7	·515	·040	·001	·003	·044	0	6·7
Worthing ...	NOVEMBER. Worthing.		36·7	·162	·000	·426	·000	·426	3940	23·8

For the purpose of comparison, I append also the results yielded by Loch Katrine water, as supplied to Glasgow, and by the waters supplied to the towns of Lancaster, Manchester, Leicester, Preston, and Worthing, when submitted to the same analytical processes. The numbers in columns 4, 5, 6, 7, 8, 9, 10, and 11 all relate to 100,000 parts of the waters. The table is to be read thus: the Chelsea Company's water collected on 4th March at the Horse Guards cab-rank had a temperature of 8·3°C.; 100,000 lbs. of it contained 29 lbs. of solid impurity; the organic matter constituting a portion of this impurity contained ·187 lb. of carbon and ·029 lb. nitrogen. This solid impurity also contained ·262 lb. of nitrogen in the form of nitrates and nitrites, besides ·003 lb. of ammonia, whilst the total amount of *combined* nitrogen in every form was ·293 lb. The above quantity of water supplied by the Chelsea Company had been, after its descent to the earth as rain, contaminated with sewage or manure matter equivalent to 2320 lbs. of average filtered London sewage.

By gradual oxidation, partly in the pores of the soil, partly in the Thames and its tributaries, and partly in the reservoirs, filters, and conduits of the Company, this sewage contamination had been converted into innocuous inorganic compounds before its delivery to consumers. Finally, 100,000 lbs. of the Chelsea Company's water contained 18·5 lbs. of carbonate of lime, or an equivalent quantity of other soap-destroying ingredients.

The effects of the great January flood in the Thames have now nearly disappeared. Nevertheless, the water delivered by the Lambeth Company on the 4th inst. was nearly as muddy as the samples collected in January and February. The waters delivered by the Chelsea and Southwark Companies were likewise turbid, whilst the West Middlesex and Grand Junction Companies, who also draw their supplies from the Thames, delivered water which had been efficiently filtered, and was, therefore, perfectly transparent.

The water taken from the river Lea, and supplied by the New River and East London Companies, was also quite transparent. The amount of organic nitrogen in the turbid waters is considerably higher than in the transparent samples. It is therefore highly probable that solid particles of unoxidized sewage enter into the composition of the suspended matter in the turbid samples.

The peculiarities presented by the Kent Company's water, delivered at the Deptford Railway Station, and noticed last month, are exhibited by the sample collected on the 2nd inst., in a still higher degree. The water was turbid from floating fibrous particles. Its total solid impurity has increased from 59·2 in 100,000 in February, to 70·2 parts in March. Nearly the whole of this increase is due to common salt, which, amounting to the very large proportion of 14·4 parts in 100,000 of water last month, has now increased to 23·7 parts.

Foreign Medical Literature.

REPORT OF AN OPERATION FOR HERNIA CEREBRI: WITH OBSERVATIONS.

BY DR. MED. H. HIRSCHSPRUNG.

Translated, with abridgment, from the *Ugeskrift for Læger*, Nos. 16-19, March and April, 1867.

By W. D. MOORE, M.D.Dub. et Cantab., L.K.Q.C.P.I., M.R.I.A.

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

(Continued from page 70.)

In proceeding to bring forward some points which naturally present themselves for consideration after the communication of the foregoing case and post-mortem examination, I may be permitted to preface my remarks with a review of the forms of tumours which, proceeding from the interior of the cranium, may show themselves upon the head of the new born child. In treating of these forms of disease we touch upon a very fruitful, but at the same time very dangerous soil,—fruitful, because it suggests a number of questions which require an answer; dangerous, because we still must want in various directions firm resting points for a thorough investigation of this kind, and for want of explanation one is easily lost in speculation. It is, therefore, easy to understand that theories play an essential part, and my sketch would not be faithful to the truth, if it did not give a view of the prevailing uncertainty.

Cerebral substance is not necessarily met with in these tumours. Thus in Bednar (*loc. cit.* p. 149) and in Rokitansky (*Lehrb. der patholog. Anat.* 1856, 2, p 408), not to speak of earlier writers (Meckel), who cursorily touch upon the subject, dropsical sacs are mentioned, which are merely diverticula of the membranes of the brain. But even before these statements appeared, the subject was separately treated of by a Belgian author, Spring (*Monographie de la hernie du cerveau etc.* in *Mémoires de l'académie royale de Belgique*, 1854), who is the first who has given a more detailed description of these forms, as the name Meningocele is derived from him. In 1859, Houel in strong terms disputed the existence of meningocele (*Archives générales de médecine*, p. 409); I am not aware whether Spring himself has answered the attack. On the other hand, Gintrac, in 1860 (quoted in the *Journal für Kinderkrankheiten*, 1860, p. 235), undertook the defence of the meningocele or, as he proposes, the hydromeningocele, against Houel, and as Virchow has finally declared himself on the same side, there can no longer be any doubt as to the correctness of admitting such tumours into the nosological system.

It is, however, more difficult to clear up the anatomical side of the question, which we come in contact with in speaking of the mode of origin of the meningocele. Spring looked upon the tumour as an hernial prolapse of the parietal layer of the arachnoid, or as protruding through an accidental opening in the dura mater, or that the latter has been pushed out with it and formed a constituent of the hernial sac. As it appears, Spring still entertains the idea, inherited from the time of Bichat, of the arachnoid as a serous sac, presenting anatomical and pathological relations common to it with the serous cavities in the other regions of the body. But it is well-known that this theory has been overthrown, especially by Luschka's investigations; it has been obliged to yield to the view which looks upon the arachnoid as a single lamina, having an epithelial investment on its outer side, corresponding to that of the dura mater, while its inner surface closely adjoins the pia mater, being separated from it only by the greater and less subarachnoid spaces filled with fluid; indeed Virchow even reduces (l. c. p. 173) the number of the membranes of the brain to two, as he says: "The arachnoid or pia is the membrane which invests the brain, the dura mater that which joins the bone." But even if we could coincide in the earlier view of the anatomy, Spring's explanation of the commencement of the tumours from a circumscribed inflammation in the arachnoid, whereby its boundaries become defined, with consecutive destruction of the adjoining bone, is too improbable to find acceptance. On the other hand, we feel ourselves undeniably appealed to by Virchow's arguments. He admits that there are not yet before us sufficiently accurate investigations, but it appears to him not to be doubtful, that an hygroma developed at an early stage in the dura mater, or a vesicular œdema in the pia mater, may be developed to such a degree, as to present itself externally in the form of a tumour. In support of this opinion he states, that even in adults, atrophy of the lamina vitrea may be produced as the result of partial vesicular œdema of the pia mater, nay, that even protrusion as a lump, of the outer layer of bone, may be so caused.

A weak point common to the theories of Virchow and Spring is this: that they leave unassigned the cause of the meningocele occurring in most cases upon a given part of the head. Spring and Gintrac are on fact agreed on this, that the occiput is the usual seat of the affection. The opening is generally found in the bone itself, more rarely in the sutures or fontanelles. According to Gintrac, the tumour is at birth generally not very large, but it grows by degrees to a considerable size. Most frequently the contained fluid can be pressed back, and the ease of reduction is said to be the best distinctive mark between this affection and Hydrencephalocele, which diagnosis is not always easy. The prospects of the child's life are unfavourable, although not quite so bad as in hernia cerebri. The cases of the last named affection cured by compression, ligature, &c., have, in Gintrac's opinion, undoubtedly been instances of meningocele.

It is clear that the description given will, in cases with which we meet, justify us in assuming the possibility of an encysted tumour; but in turning to the case above reported, we will recollect that what in our patient made the evidence of meningocele rather doubtful, was the fact, that in the neck of the tumour a somewhat irregular solid swelling was felt proceeding from the bone, and as it seemed, from a slight depression in the latter. This would involuntarily direct one's thoughts to a prolapse of the cerebral mass, and only the peculiarity that the projecting apex gave to the touch a feeling of fibrous, nay, almost of bony hardness, shook the conviction of the presence of hernia cerebri.

It may be added that at least one case is found in literature, respecting which it is stated that in the neck of a large congenital sac, a process of the pia mater was met with, which simulated a prolapse of the brain. The case is reported at second-hand in *Medical Facts and Observations*, London, 1797, vol. 7, p. 281. In the right side of the sac, close to the opening in the occipital bone, lay a fungous tumour as large as a walnut. Through the small opening in the bone, the tumour could be traced to its origin from the pia mater on the surface of the brain, while the brain itself was not implicated. But a more accurate acquaintance with this case, has certainly in my mind thrown great doubt upon the explanation. The feeling of a tumour projecting in the neck of the sac, may therefore certainly always be considered as indicating the presence of a cerebral hernia, and it remains only to direct special attention to the peculiar deception of the sense of touch, which might cause a perfectly soft body to present to our feeling a considerable degree of hardness,—a phenomenon which I have subsequently had the opportunity of demonstrating under similar circumstances though in a less degree. In the last mentioned case the child was dead, and the idea hitherto entertained, that the tension produced by sanguineous congestion might be the cause of the illusion, was thereby refuted.

If the tumour contains a prolapse of the cerebral mass, the case is different. Hernia cerebri in fact comprises two ideas, which nevertheless have points of contact, and are by no means clearly defined: Encephalocele and Hydrencephalocele. By the first we understand in general a simple prolapse of the brain, by hydrencephalocele prolapse of an hydrocephalic brain. In both forms fluid may be found in the hernial sac, so that the external occurrence of the latter does not indicate any essential difference.

The pathology of Hydrencephalocele is most developed. Even Morgagni had recognised hydrocephalus as the only cause of hernia cerebri (as well as of spina bifida), and many later writers have supported this opinion, which, however, has not met with general adoption, because of the difficulty of understanding the limitation of the pressure to the points peculiarly liable to the protrusion of the hernia. So long as it was supposed that the hernia cerebri invariably protruded through the sutures and fontanelles, or through defectively ossified parts of the skull, the explanation was always ready, as it was inferred from this circumstance, that these parts had less power of resistance against the intracranial pressure. Experience shows, however, that the opening in most cases is accidental, is excavated in the bone itself, even in the thickest parts, as it is certainly doubtful (Spring) whether the osseous mass is better adapted to resist the certainly weak, but constant pressure, than the tough membranes. It was therefore necessary to seek for other causes of the constant occurrence

of the hernia in the same points, and it is upon the theory of a circumscribed dropsy of the ventricles of the brain that Spring builds his explanation of the origin of hydrencephalocele, which is advocated also by Houel and Virchow. The last named writer expresses himself as follows:—If a general hydrocephalus be met with and the cranium yields, a kind of macrocephalia is developed, but no tumour-like affection. But some parts may be predominatingly affected, as the communication between the several portions is interrupted. It is thus, for example, common to find the cornu posterius in its whole extent or partially obliterated. In this manner an hydrops cysticus cornu posterioris may arise. The several dilated parts of the ventricles with the surrounding cerebral mass may now by increase of growth press outwards, and either hinder the closing of the skull or by pressure gradually produce an opening in the bone, and protrude externally in the form of herniæ. A meningocele is not unusually met with at the same time. Perfectly similar conditions are found in the spinal canal, but these incomparably more frequently, giving rise to spina bifida.

Our experience of partial dropsy of the ventricles reach, however, farther back. Early writers spoke of hydrocephalus dimidiatus, *i.e.*, in one lateral ventricle. The lateral ventricles have been found distended, the third ventricle empty, and *vice versâ*. Dropsy has been seen limited to the pineal gland, and to the cavity of the septum lucidum, &c. The certainty that such partial dropsical processes are met with, affords the foundation of the theory, and if experience shows that the hernia protrudes only at the points of the cranium corresponding to the ventricles of the brain or their prolongations, we have—this must be conceded to Spring—a powerful argument in favour of his pathogenetic theory. Of his scheme I will put forward the following:—

1. Dropsy in the posterior horns of the lateral ventricles: hernial opening between the angulus sup. oss. occipitis and the spina occipitalis near the middle line. Hernia supraoccipitalis.

2. Dropsy in the fourth ventricle: hernial opening beneath the spina occipitalis near the middle line. Hernia infraoccipitalis.

3. Dropsy in the anterior horns of the lateral ventricles: hernial opening at the meeting of the nasal and frontal bones, rarely in the frontal bone itself, near the middle line, still more rarely through the os. unguis. Hernia frontalis seu frontonasalis.

4. Dropsy in the descending cornua: hernial opening in the region of the spheno-maxillary fissure. Hernia orbitalis and spheno-maxillaris.

5. Dropsy in the third ventricle: hernial opening through the body or inner part of the ala major oss. sphenoidei.

If, with the light which the above scheme throws upon the origin of hydrencephalocele, we subject our own case to analysis, we shall find that it is by no means at variance with Spring's theory.

Had we, immediately after the operation, been in doubt whether we had removed a simple hernia cerebri, or whether the latter was complicated with hydrocephalus, this uncertainty must have disappeared on the occurrence soon after of undoubted signs of hydrocephalus. The prolapsed part appeared on dissection to have been the posterior portion of the left cornu posterius, and the hernial opening was found. in accordance with the theory. over the spine of the bone, and in the middle line itself. The left posterior horn formed a direct continuation of the other strongly dilated cavities, but this, of course, by no means excluded the possibility that in its time an obstruction may have existed, which was gradually forced to yield to the constantly-increasing pressure of the augmented quantity of fluid. The occlusion which was met with in the passage from the aqueduct of Sylvius to the fourth ventricle might even, by analogy, justify the inference that a similar occlusion had existed in other points of the cerebral cavity. On the other hand, we cannot, inclined as we might be to believe in the importance of the obliteration for the whole process, disregard the influence which the fluid, by its own weight, might have in protruding the brain through a corresponding point of the skull. nor has Spring shut his eye to this possibility. Of sixty cases which he has collected, forty-one were situated on the occiput, which, in consequence of the usual position of the child's head in the majority of instances, will form the most dependent part, to which the collection of fluid must necessarily gravitate. I, therefore. believe that in the foregoing case we can easily, without taking refuge in the assumption of a then existing closure of the posterior horn, explain the origin of the hernia by the aid of obliteration of the aqueduct of Sylvius, which has placed an obstacle to dilatation in this direction, and also of the concomitant, somewhat increased intra-cerebral tension, but especially of the specific gravity of the fluid, whereby strong pressure was produced inferiorly towards the lowest point of the cranium.

Obliteration of the aqueduct of Sylvius seems moreover not to be a rare phenomenon in these affections. Hyrtl (Haandbog i den topograph Anat., p. 80) says that the serous accumulation in the brain is most frequently confined to the middle and lateral cavities, while the fourth ventricle is rarely dilated, "which suggests the idea of an obliteration of the aqueduct of Sylvius, which may be due to the great narrowness of the canal in connection with the thickening of the serous investment common in all dropsies." We accept the fact, while the explanation must certainly be regarded as highly problematical. I have myself since had an opportunity of seeing the closing of the canal in the same place. On the 10th September, 1866, I made the post-mortem examination, at the Lying-in Institution, of a still-born, mature male infant, who had a large hydrencephalocele hanging down from the occiput. The report forms, so far as the head is concerned, essentially a companion piece to my first case: the hernia protruded through a deep crescentic opening in the upper part of the squama oss. occipitis; it was formed of the posterior part of the left hemisphere, which had broken out through a wide opening into the hernial sac; the tubercula quadrigemina were also here changed to a thin, medullary layer; but the fourth ventricle was uninjured. In this child, too, the head presented.

If we attend to the state of the tubercula quadrigemina in these cases, and remember that the filaments of the optic nerve proceed chiefly from these bodies, we may reasonably put the question, whether vision is possible in such a child. In the concrete case the decision of this point is always difficult, especially when hearing is present, and the child's head may be supposed to turn instinctively towards the sound, which attracts its attention; but absolutely it cannot be denied that the filaments of the optic nerves may have preserved themselves in the medullary layer, which represented the tubercula quadrigemina, as it must be remembered that the optic nerves get filaments also from other parts of the brain—namely, the corpora geniculata and thalamus. Therefore, I ought not decidedly to deny the correctness of the mother's assertion as to the child's power of vision, inclined as I would be from my own observation to ascribe it to an easily comprehensible illusion.

(To be continued.)

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 15, 1868.

THE ST. ANDREWS GRADUATES' GENERAL SESSION.

THE meeting of the St. Andrews Graduates' Association was held last Wednesday evening, according to our announcement, and passed off very successfully, Dr. Richardson, President, occupying the chair.

There is a large increase in the numbers of the Association, upon which we offer our congratulations to the members, though this fact, unfortunately, entailed a great loss of time and materially hindered the progress of other business.

The ballot is a slow process even for the admission of a small number of persons who are well-known to all, and who may probably be elected as a matter of course, how much more so when about 100 persons scattered over the Kingdom are to be submitted to the test! With every wish on the part of the majority to expedite matters it was found quite impracticable to get through the work of the evening, on account of the length of time consumed in balloting for new members ; and it seems to us that the Council of the Association might be trusted with the admission of members. If not, we can only hope that, on a future occasion, some other method may be tried. Why should not a printed list have been circulated beforehand, and the voting carried out by marks placed against the names by the associates present at the meeting? It would perhaps be simpler to admit, as was done last year, all graduates who chose to join, and such liberality would well accord with the primary object of the Association.

The Parliamentary business was not prolonged, as the Secretary had condensed into a very able report an account of all that had been done by the Council, as well as a history of all that had come to his knowledge respecting the movement for securing the rights of graduates. It is now looked upon as a settled thing that the graduates shall be admitted to the franchise, and we may, therefore, trust that the Edinburgh section will cease from a futile opposition, which is only likely to irritate the St. Andrews Graduates into organising a plan to defeat any candidate who may hail from Auld Reekie. Already, as we have mentioned, the friends of some candidates are at work, in the hope of securing hasty promises. It would be good policy to wait awhile; for, as we last week stated, there will be other candidates whose names have not yet been announced, and who will seek for support in the medical interest. No one has yet given a distinct pledge to stand by the principal of justice to all graduates of both the Universities, and without such a pledge we hope no one will obtain the support of the doctors of medicine of either.

Besides the franchise, the Association is anxious to secure for the graduates a voice in the government of the university. This is a natural desire, and when we look at the privileges of the graduates of other universities, and the moderation with which they have been exercised, we cannot see why the authorities at St. Andrews should hesitate to grant all that is asked. Concession is the order of the day at all the universities, and the House of Commons, if appealed to, is likely to make a clean sweep of all obstructive bodies. We should therefore advise that the flag of "no surrender" should not be raised, for so sure as it is unfurled it will lead its followers to destruction. It will bring at once to the front a united phalanx of hundreds of graduates, whose resistance to one or two petty oligarchies will be pronounced by the Parliament and the people as both natural and just. In these days the assertion of *privileges* upon the part of the few only provokes the demand for *rights* on the part of the many. Let all obstructives bear this in mind, and while they may, act justly, and so get the credit of also acting generously.

After the conclusion of the debate on Parliamentary matters, in which many well-known graduates took part, the President brought forward his scheme for a registration of disease. In a few pointed remarks he urged the utility of such a collection. He was authorized by the Society to head a deputation of its Council to Lord Devon, with a view of obtaining such a modification of the form of record kept by Poor-law Medical Officers as would answer this important national purpose. Of course the Association recognizes and urges the necessity of paying Poor-law Officers for the extra work. We know it would be well done—no one doubts that it would be useful, but few hope that the Poor-law Board will entertain any plan for putting a few coppers into the pockets of the disgracefully over-worked and under-paid Poor-law doctors of the kingdom.

THE NEW REGULATIONS FOR ENGLISH POOR-LAW MEDICAL OFFICERS.

The regulations lately issued by the Poor-law Board, impose a fresh series of obligations on the unfortunate men who serve in the medical department. It is bad enough that these over-tasked officials should have new burdens laid upon them, but besides this they are to be deprived of any security that they will be supported if they attempt to obey. They are to inspect the institutions with which they are connected, they are to report upon the conduct of the Guardians who employ them, but these Guardians are to retain the power of dismissing them for their impertinence. In process of time we shall discover what kind of a being the Poor-law Board is looking for as Medical Officer. It is clear that he has long ago been expected to be so angelic as to disdain all creature comforts, to need no food, to require no rest. He ought to rejoice in the privilege of attending the pauper at a loss, and if he can accept, as the best of stimulants, the kicks which the severely cruel Mr. Fleming may think fit to administer, he may possibly be suffered to enjoy them during the pleasure of that awful functionary. If, on the contrary, he should cherish the delusion that the Poor-law doctor is "a man and a brother," and so dare to assert his rights as such, the fate of Dr. Roger's will soon be his, and his Guardians will have as great a triumph as the directors of the "Brimstone Hotel."

It seems strange that with two medical men, whose duty it is to advise the Poor-law Board on all questions, such failure of bare justice should continually occur. We remember very well, before these gentlemen were selected for their responsible positions, that such appointments were expected to afford protection to the hard working officers, whose groans filled the whole profession with indignation. When they were appointed, hope at once rose, but how bitter has been the awakening from that dream! In putting on the official cloak, they seem to have put off all care for the sorrows of their profession, and lost all interest in its honour. Had they but done the work for a few months, which their poorer brethren are compelled to do, are doing year after year, they would not so easily forget the toil, as to stand by and suffer an addition to be made to it without remonstrance.

As we have urged over and over again, the inspection required is that of well-trained, independent men, and the scheme to palm off for it a mere supplementary report, procured from the over-tasked medical officers, and at their personal peril, is neither more nor less than an attempt to hoodwink the public. That the plan will meet with the reception it deserves, we hope and believe. That all may understand the gist of it, we add the following remarks, which have been forwarded us by a correspondent, well acquainted with the whole subject :—

"The truth is, that this is an attempt on the part of the central board to supplement the now notorious deficiencies of the lay inspectorate by imposing unpaid, onerous, and personally penal obligations upon the unfortunate union medical officers without holding out to those gentlemen the least hope that they will be protected in any way, provided they honestly discharge the duty. That such services should be performed, and that medical officers should be secured in every way from the wrath of the local boards cannot be doubted; but what hope is there that such will be the case so long as the central poor-law permanent staff remains as it now is—so radically, incurably, inefficient, and corrupt.

"In many unions the regulations cannot be carried out with even an approach to safety to the medical officers—viz., in those where the appointments are only for a stated time, and not for life.

"I know not to which of the medical advisers of the Poor-law Board the proposal of these additional duties is to be attributed. Perhaps it has had a joint parentage. But whether it proceeds from one or both, we can now plainly see that the selections of medical inspectors made by the late and present governments have been most unfortunate for the interests of poor-law medical officers generally. Their unfitness for their office unquestionably arises from the fact that owing to their education and previous pursuits these gentlemen have not been, and, what is more never can be *en rapport* with those who bear the heat and burden of poor-law medical work. The old association of poor-law medical officers, of which Mr. Griffin was chairman, always urged the appointment to the office of medical commissioners to the Poor-law Board of a gentleman who had seen some lengthened service under a local board, and who would thereby be rendered capable of appreciating the difficulties, and of sympathizing with the troubles of his less fortunately placed brethren. Had such been done I am convinced that these new regulations would never have been issued without a distinct intimation from head quarters that the officer should be protected in complying with them, and provision being made that these extra services should be paid for.

"In conclusion, I cannot resist asking whether a great outcry would not have been raised in the sister services of the army and navy if the directors-general and inspectors were chosen from the ranks of hospital physicians and surgeons who had never seen the interior of a military or naval hospital, and who were wholly unacquainted with the necessary details of such services.

"Yet the same thing has been done by the Poor-law Board; and the interests of 3000 medical officers have been confided to gentlemen who have little sympathy with, or knowledge of, the position and duties of these officers."

Notes on Current Topics.

The Public Health.

The rate of mortality continues to be much the same as for the last few weeks. The annual rate was 25 per 1000 in the large towns together; while the rate in each was as follows:—London 22; Edinburgh 26; Dublin 27; Bristol 28; Birmingham 26; Liverpool 29; Manchester and Salford, each 29; Sheffield 21; Leeds 23; Hull 20; Newcastle-on-Tyne 22; Glasgow 32.

There were 1346 deaths registered in London, which is 201 less than the average number of this week in the year. The deaths from zymotic diseases numbered 252, the average being 326. Of these 17 are registered as due to small-pox, 46 to measles, 12 to scarlatina, 11 to diphtheria, 58 to whooping-cough, 24 to fever, and 23 from diarrhœa. Of diseases of the chest we note in the returns 186 deaths from phthisis, 147 from bronchitis, 70 from pneumonia, and 65 from diseases of the heart.

Health of Madras.

We have several times had occasion to comment on the sanitary condition of our Indian dependency, and now we wish to draw attention to a report of Mr. Ellis, sanitary commissioner of Madras, which has just appeared, and some of the figures in which are of unusual interest. The population of the districts from which returns were received in 1866 was 21,844,694, and the deaths were 586,225, or 26·8 per 1000 of population. The deaths from cholera were 197,977, or 9·1 per 1000 of population. The districts which suffered most severely were Ganjam, in which the death-rate was 55·3 per 1000; and Bellary, 41·8 per 1000, of which 19 per 1000 arose from cholera.

Some allowance must be made in these figures for the necessarily considerable number of cases entered as cholera which were due to other causes, such as starvation, but the termination of which would be marked by alvine flux. It should also be mentioned that imperfections may result in the statistics from ignorance or want of practice in those who collect and compile them, since 1866 was the first year in which the deaths of the civil population were returned. Besides cholera, fever also caused severe ravages—107,846 deaths being referred to that disease.

If we turn to the *town* of Madras, we find that imperfect death registers have been kept since 1855. Attempts to remedy the sanitary conditions of the town encourage us to hope that the returns may in future be more favourable.

The population of the town in 1866 was estimated at 450,000; the deaths were 13,881, affording a death-rate of 31·2 per 1000 of population, against an average rate in the six previous years of 28 per 1000. The deaths from fever were 2256, against 2190 in 1865; diarrhœa, 949, against 1062 in 1865; dysentery, 1316, against 1159 in 1865; small-pox, 103, against 44 in 1865; and cholera, 2984, against 944 in 1865.

Besides the improvements being effected in drainage, water supply, and other sanitary conditions, it is to be observed that the year was peculiarly unhealthy. Both cholera and fever were epidemic, and in some parts famine added to the people's sufferings.

For these reasons, we may fairly hope that the mortality in future will seldom be so high.

Turning now from the civil population, we find that the statistics relating to the European army serving in the Presidency of Madras and at Port Blair, Singapore, and Penang during the year 1866, return the strength of the troops at 11,498. The admissions into hospital were 16,795; the average number daily sick was 779, or 68 per 1000; and the mortality was 250, or 21 per 1000 strength. The number invalided for discharge was 645, or 57 per 1000 strength. The sanitary condition of the European army showed a slight retrogression in 1866, but the mortality contrasted favourably with that in the other Presidencies, the death-rate per 1000 strength being 17·9 in Madras, 29·9 in Bengal, and 23·4 in Bombay. The strength of the native army in 1866 was 32,121, but the statistics of the medical returns related only to 27,217, of whom 22,135 were admitted into hospital; the daily average sick were 870, and the deaths were 375, or 13·7 per 1000 strength.

It may interest some to compare with this the account of the criminal population, which numbered 9457. The death-rate was 124·5 per 1000.

At Berhampore there was over-crowding and bad ventilation in the gaol, while famine prevailed for four months. The mortality was 461 per 1000. This was not the worst place, for at Tellicherry the mortality reached the frightful figure of 783. Surely there is much to be done yet.

The Royal College of Physicians of London.

In spite of the prognostications of our contemporaries, the Fellows of the College of Physicians have re-elected Dr. Alderson president, by an overwhelming majority. It is rather amusing to be told that "this fact is in apparent opposition to the perfectly correct statement" previously put forward, with a view of influencing the election, especially when two journals bring forward the same name as a favourite. Let it pass, however. People who indulge habitually in prophecy do not produce much effect by their lucubrations. We have heard it whispered that there is no more truth in the talk about Dr. Alderson's conservatism than in the predictions that have been falsified, and we hope that this may prove to be the case.

Royal College of Surgeons of England.

The contest at the July election still excites much interest, though there is little to call for remark since we last wrote upon the subject.

The candidature of Mr. Erasmus Wilson assumes a more important aspect than was expected, for besides taking his stand as a representative of science, he has sketched a programme so liberal that it cannot fail to secure him the adhesion of a large party, and compel his opponents to speak out. There is one point which we think deserves further elucidation—viz., the association of fellows which Mr. Wilson wishes to see established. What does he mean? We believe there was once a Fellows' club or a Fellows' association. Would Mr. Wilson revive that? or would he establish another on a broader basis? We think the Fellows would like to hear more about this.

King's College.

The appointments at King's College and its hospital seem always to be a source of complaint, and no wonder; for some of them have been most transparent jobs. Mismanagement, or something worse, again makes King's College the talk of the week. The claims of Dr. Conway Evans who, in the zealous discharge of his duties as assistant-physician for more than twelve years, has proved himself an able clinical teacher, seem to have been once more forgotten. Dr John Harley has also been for many years connected with King's, during which he has proved himself an able investigator. It was said to us the other day that some men would rather be doorkeepers at King's College than sit in the seat of honour elsewhere. Verily, the institution has a knack of retaining, as her doorkeepers, men who elsewhere would reap the reward that is their due. Still the quotation about "hope deferred" should not be forgotten.

The Case of Dr. Stirling.

A correspondent of the *Army and Navy Gazette* relates how Commodore Randolph has ejected from office Staff-Surgeon Stirling, M.D., under pretence that this gentleman had not been sufficiently attentive to another naval officer, who was ill under the Commodore's roof. The doctor seems to have been under the impression that sailors dangerously ill should have precedence of a captain less severely afflicted. In fact, it would seem, that the gravity of the said captain's case was not increased, in the doctor's eyes, by the fact that he was the Commodore's friend. What obliquity of vision in a professional man.

As Dr. Stirling left the Cape for England by the last mail, we shall no doubt shortly hear more of the matter. It cannot rest where it is.

The Epidemiological Society.

On the 6th inst., Mr. Radcliffe read a paper on Cholera, in which he had collected all the facts of the late epidemic that he could rely upon. A discussion of a somewhat desultory nature followed. Several speakers directed their observations towards the question of contagion. It was objected by some that the paper did not broach this doctrine. Others thought that although full of facts, there was an evident leaning in the paper to the theory of contagion, and therefore, they proceeded to show that the facts were equally in accordance with the opposite view. This led to the question of quarantine, which was denounced as erroneous in theory and useless and oppressive in practice. The debate is adjourned, and we hope may be fairly carried out, for there are few more important questions that could occupy such a society. We should be glad, indeed, to see this question of quarantine sifted to the bottom by the society.

Mortality of Scotch Children.

In 1867, of all the deaths in the eight principal towns of Scotland, 43 per cent. were those of children under five years of age. Further, a comparison of the deaths with the population, shows that the mortality per 1000 of children under five, in the several towns, was: in Perth 50, Aberdeen 63, Paisley 79, Edinburgh and Greenock 87, Leith 88, Glasgow 96, Dundee 106. Here is an ascending scale, at the foot of which is Perth, while Dundee is at the top. In this last town the infant mortality is more than double that of Perth. Figures like these should excite inquiry. No slight circumstances will account for them.

History of Anæsthetics.

Mr. Syme thinks there is a prevalent erroneous understanding with regard to the history of this subject. Accordingly he has thought it right, in justice to our Transatlantic brethren, to issue, in pamphlet form, an extract from the work of the late Dr. Mason Warren, who details the early discovery of the power of ether by the dental practitioner, Dr. Morton, and the earliest use of the agent in surgery, which was by Dr. Warren and his colleagues in the Massachussett's General Hospital, whence it spread throughout the world, and was shortly followed by the discovery of chloroform.

In noticing this, we may mention that Dr. Mason Warren, like many of his countrymen, prefers ether to the more pleasant smelling, but, as he believes, less safe anæsthetic.

Those who have not looked up the history of anæsthetics, will be pleased to meet with the extract Mr. Syme has issued (through Messrs. Edmonston and Douglas), from the "Surgical Observations" of Dr. J. Mason Warren.

Diarrhœa: Dr. Chapman's Therapeutical Method.

Since publishing on the 1st inst. the case sent to us by Dr. Fitzgibbon, of "choleraic diarrhœa, which had resisted other treatment, checked by the application of Chapman's ice-bag," we have received from another source, information confirming his report of its action. Dr. J. S. Hackett, Physician to the Colonial Hospital, New Amsterdam, Berbice, British Guiana, has written to a friend, who has placed the information at our disposal, that, having read

with great interest Dr. Chapman's treatise on Diarrhœa and Cholera, he has been induced to put the doctrines in that work to the test of experience, and that the application of the spinal ice-bag was followed by "marked benefit in all the cases" in which he used them. . There was no cholera at Berbice at the time he wrote, but in the treatment of diarrhœa by the method in question "I have not," he says, "been disappointed."

When reviewing Dr. Chapman's work on the subject, we expressed our admiration of the ingenuity of his theory, as well as of the clear and logical form in which it is expounded, and recommended it to the careful attention of the profession. The facts we now mention seem to justify that commendation, which is strengthened by the evidence given on the 13th ult., at the Surgical Society of Ireland, that the spinal ice-bag does really exert an appreciable physiological and therapeutical action.

According to Dr. J. H. Benson, it cured a case of obstinate suppression of the menses, accompanied with severe and continuous headache, and greatly benefitted a patient suffering from partial hemiplegia, after other remedies had been tried in vain ; and Dr. Hewitt informed the Society that he had used the ice-bag in a case of delirium tremens, after capsicum had failed, and tartar emetic and opium had seemed to do harm, and found that it checked perspiration, cured the tremors, and produced sleep almost immediately. As he observed, the results in this case were precisely those attributed to the remedy by Dr. Chapman, and we agree with him in thinking "they are fraught with interest." Indeed, it seems impossible to withstand the evidence, now fast accumulating from different sources, that Dr. Chapman's pathological theories have led him to the discovery of a therapeutical power of the first magnitude, and possessing a very wide range of application. We again commend it, therefore, to the attention of our readers, with the earnest advice to test its efficacy as a remedy for diarrhœa ; for if, happily, a large and varied experience should prove that the spinal ice-bag is really remedial of this disease, it will, while countenancing Dr. Chapman's theory of the essential nature of diarrhœa and cholera, afford strong hope that we may find in the spine-bag the most potent remedy for cholera itself.

The Royal Visit to Ireland.

We revert with pleasure to the agreeable topic of the visit of their Royal Highnesses the Prince and Princess of Wales to Ireland, and the approaching reception of the Prince at the Royal College of Surgeons. The Council has erected, for the accommodation of the Fellows and Licentiates to view the installation procession, three large balconies ; the interior of the College has undergone redecoration, and the address to His Royal Highness was adopted at the last meeting of Council. The hope which we ventured to express last week, that Mr. Adams, the President of the College, and Surgeon-in-Ordinary to the Queen in Ireland, may be deemed worthy of a special mark of distinction at the hands of the representative of the Crown, has been most warmly entertained by the College, and has derived strength from the fact that, although the medical section of the profession has been distinguished in the person of Sir Dominick Corrigan, the Physician to Her Majesty in Ireland, the medical baronetcy rendered vacant by the death of Sir Philip Crampton never was filled up.

The gracious act of honour towards Mr. Adams which we have indicated, would be most fittingly supplemented by the election of a Surgeon-Extraordinary in the place of the late Dr. O'Bierne, and we cannot hesitate in pointing to Mr. Porter, the Vice-President of the College, as being most justly entitled, both by his professional position in this capacity, as the senior surgeon to the County Dublin Infirmary, and as an adroit and advanced operative surgeon, to such a decoration.

The Election to the Meath Hospital, Dublin.

The choice of a Surgeon to occupy the vacancy caused by the transference of Mr. William Stokes to the Richmond Hospital, took place on Saturday last, and excited much interest amongst the profession in Dublin. The names of many gentlemen had been mentioned as either actual or probable candidates, including those of Dr. Stronge, late of Belfast ; Dr. Mapother, Professor of Anatomy and Physiology in the Royal College of Surgeons ; Mr. Tufnell, Surgeon to the City of Dublin Hospital ; Mr. Richardson, of the Adelaide Hospital ; Mr. White, of Jervis-street Hospital ; Mr. Mayne, son of the late Dr. Robert Mayne ; Dr. P. C. Little, and many others. As nearly three months intervened between the appointment of Mr. W. Stokes to his new position and the election to his office at the Meath, there was ample opportunity for the consideration of the claims of various candidates, and the interposition of religious considerations by certain members of the Town Council, from whom the hospital derives an annual grant of £300, added to the conjectures as to the probable result.

The event has resulted in the election of Dr. Stronge, of whose qualifications and previous services we append the following notice from the Medical Directory :—"James W. Stronge, 49, Great George's-street, North, Dublin, M.A., M.B., T.C.D., 1841; L.R.C.S.I., 1843; L.M., Dublin Lying-in Hospital, Mem. Path. Soc., Dublin ; Med. Officer Health, Belfast ; late Surgeon Ranensdale Dispensary, and Res. Surg., Whitworth Hospital, Dublin Contrib.—'Remarks upon the Epidemic Fever and Bowel Hæmorrhage of 1846-47,' *Dublin Quarterly Journal.*"

Original Communications.

DISEASES OF CHILDREN: CONVULSIONS.

CASES AND OBSERVATIONS.

By P. C. LITTLE, F.R.C.S.I., L.M., &c.

The study of infantile disease is daily attracting much attention. It affords a wide and fruitful, yet comparatively uncultivated field of observation. The ancient popular prejudice, that only old women can understand the ills of childhood, is fast declining, and the necessity of scientific knowledge for the proper treatment of disease, assailing life from its budding to its decay, is now very generally recognised. The greater value hitherto attached to adult existence, influenced our predecessors in devoting themselves almost exclusively to the morbid conditions of that state, although, in social and national aspects, the lessening of infant mortality is of vast importance. Great and special difficulties oppose our efforts in this direction, yet the very magnitude of those obstacles, and the helplessness of the little creatures whom we desire to preserve, and who may one day "fill our places," should animate us in our labour of love. Through the courtesy of The Medical Press and Circular, of which I have before so frequently availed myself, I purpose offering occasionally, from my

practice, contributions upon this most interesting class of diseases.

I now beg to present some cases of Convulsions, a fearful malady, prevalent in early life, and too often the herald of death and sorrow. This disease has been divided in so many ways by authorities on the subject, that it is necessary I should here state what classification I adopt. I have selected the following, which is based on pathology, and sanctioned by Dr. Churchill, a name in which Irish medicine is honored, and which will ever be associated with the names of West, Graves, Gölis, Rilliet and Barthez, in connection with infantile disease.

1. *Primary or Essential Convulsions.*—Caused by irritation, as teething, fright, &c.

2. *Sympathetic.*—Occurring in the progress of other ailments, as whooping-cough, diarrhœa, fever, &c., excepting diseases of the head or spine.

3. *Symptomatic.*—Arising from disease of cerebral or spinal organs, as tubercular meningitis.

PRIMARY CONVULSIONS.

Case 1.—Feb. 15.—At half-past five A.M., I visited M. C., a female child, aged a month, suffering from convulsions. The infant appeared lean, immature, and exhausted. It lay in the nurse's arms, its head thrown backwards, limbs extended, thumbs and great toes crooked. It was quiet, but rather wakeful, at one time widely opening its eyes, and then dozing asleep, during which it sighed heavily. The skin was dusky-looking, dry, wrinkled, and warm; feet cold; head very hot, fontanelles normal; face dark, sunken; tongue bluish; mouth with a painful expression; eyes symmetrical, conjunctivæ blood-shot, pupils natural, highly sensitive to light. Pulse weak, irregular, about 140; heart and lungs sound, but feebly acting; spine congested, its temperature exalted; bowels and stomach tender on pressure; abdominal muscles in tonic spasm; no paralysis. The stools were scanty, light grey, mixed with slimy matter, and passed with much straining; urine nearly colourless.

The following is the history of the case:—The infant was born at eight months. Its parents were very young. The mother, a rather delicate primipara, was scarcely eighteen years of age when I attended her upon this child, just a month ago. She attributed her premature confinement to anxiety at the serious illness of a near relative. Nothing unusual occurred during the labour. At birth the infant seemed very thin, poor, and undeveloped. The mother had no milk for it. I therefore recommended her to provide a wet nurse; or, in the event of her not procuring one, to bottle-feed the baby on pure fresh milk, with hot water and sugar added, as hereafter described. She, however, acting on the advice of a nurse who thought such diet not nourishing enough, fed the infant upon bread, biscuit-powder, and milk. The bowels and stomach soon became deranged. Peevishness, constipation, and flatulence followed. The child wasted and pined away, and within the past week was slightly convulsed three or four times. Last night, about twelve o'clock, it got a severe attack of general convulsions, which continued for about ten minutes. The fit was immediately preceded by great restlessness, was accompanied with strong excitement of the voluntary muscles, and on its subsidence the baby seemed faint, breathless, and inclined to sleep, as remarked. A second, more prolonged and violent, paroxysm recurred a short time before my visit.

My immediate treatment consisted of—firstly, a warm bath for about three minutes; sinapisms to the abdomen and spine, from occiput to lumbar region; a lotion of spirit and water (equal portions) applied to forehead and fontanelles, and the following:—

℞ Pulveris rhei gr. iij.
Calomelanos,
Sacchari albi aa. gr. ij.
Pulv. aromatici gr. j.

Misce fiat pulvis. Statim sumat.

A tea-spoonful of castor-oil to be given in two hours afterwards. The infant to be wrapped in flannel, and a good wet nurse provided forthwith.

Mid-day.—An excellent nurse has been procured. Since morning the convulsions returned twice—the last time with great severity. The child seems, however, much improved. The bowels have been evacuated of a quantity of offensive whitish stools; tenesmus continues. The pulse is 130, more natural; skin moist, head cooler, eyes more lively; the lotion quickly evaporates on the forehead. The abdomen is not so hard and tender, its muscles less rigid. I ordered a warm linseed cataplasm over the bowels, and this medicine:—

℞ Hyd. cum creta gr. iij.
Sacchari albi gr. ij.
Pulv. aromat. gr. j.

Misce fiat pulvis. Tales duodecim mitte, quorum unum tertiis horis capiat.

Midnight.—The bowels have been again free, the motions are curdy and slimy; the head and whole body of natural warmth; stomach and bowels soft; sleep tranquil; appetite ravenous; had one strong and protracted fit at six o'clock in the evening.

The skin of the abdomen being tender from the poulticing, I ordered it to be smeared with sweet oil and covered with French wadding. Continue the powders.

16th.—Is better; had two attacks of the spasms during the night, the first at one o'clock, the second, a violent one, at day-break. Treatment as before.

17th.—Is very well to-day; stools greenish; has had no fit since my last visit; enjoys its food and sleeps soundly. The powders to be given only three times a-day.

18th.—The stools are natural; the child is in perfect health and spirits. Discontinue the medicine.

On my calling two months after this, I found that the infant had had no return of the fits, and had grown stout and strong.

I have been particular in detailing this case, as it appeared typical of its kind.

SYMPATHETIC CONVULSIONS.

Case 2.—J. G. N., a male child, aged 11 months; hitherto healthy, now suddenly affected with fearful convulsions, especially of muscles of face, neck, and arms. The surface of the body is hot, the head remarkably so; face dark and congested; eyes closed, sensitive to light, conjunctivæ injected, pupils natural; pulse weak and rapid; respiration hurried; bowels hard, distended with flatus, and long constipated. The fits recur at irregular intervals, at present two or three times in the day, continue from three to five minutes, and leave the little sufferer weak and irritable. Some time since, he got his incisor teeth easily, now the molars seem to be coming to the surface. The gums are tumid, tender, and red; no tooth can be felt beneath. To relieve the congestion, the lancet had been freely used before I was in attendance, but so far from doing good, it seems to have increased the frequency and severity of the spasms. There is no hereditary disease in either parent, that I could learn. I prescribed immediately the mercurial purgative as in Case 1, and castor-oil; also, a large sinapism to abdomen. The bowels were well evacuated, stools hard, and slimy. The intervals between the fits grew longer, the attacks less severe. They returned occasionally, however, for thirteen months; were always amenable to the aperient mentioned, and disappeared entirely on the completion of dentition. The child has become a fine healthy fellow.

Case 3.—L. N., æt. eight months, sister of the last patient; afflicted with spasms of upper extremities, and hideous contortions of the features; winking, fixing of eyes, pupils turned upwards under lids, sensitive to light, and contracted; skin very hot; face blue and swollen; bowels constipated and tender on pressure. She, too, had cut her front teeth easily, but her gums were tender; the molars yet impalpable. In her case the paroxysms were more violent and repeated, but more brief than in her brother's.

She had had twenty-three fits in the forty-eight hours preceding my first visit. Subsequently neglect of keeping the bowels free, brought on an attack at times during five months, at which period the teething ended, and with it the convulsions. The treatment was the same as in the previous case.

Case 4.—Isaac B., æt. four months, attacked by convulsions during teething. On my visit his eyes were fixed, insensible to light, the lids easily opened, pupils natural; face thin and sallow-looking; bowels not free; stools slimy and green; pulse very small, too rapid to be counted; skin dry and hot. The fits recur two or three times every day, and are growing more severe. The incisor teeth are out, the molars approaching the gums. The parents are healthy. I followed the same treatment here as in Case 1, only, however, giving the hyd. cum creta powders for about three days, when the fæces became more natural. Slight attacks occurred now and then for nearly four months, on the bowels being confined. The child is now robust.

Case 5.—June.—Ed. F., æt. five years; always a delicate boy; had been ill for three or four days with febrile symptoms, attributed to the heat of the weather. He then complained of headache, drowsiness, sickness of stomach, and thirst; skin burning, bowels constipated. These conditions had increased so rapidly, that on the day of my visiting him, he had lost consciousness, hearing, sight, and speech. When turned or moved he screamed fearfully. He drank automatically, and relapsed into a comatose state. Frequently he had strong convulsions of right side of the body, and particularly of right arm, attended with shrill, pitiable cries. The pulse was feeble, rapid—about 160; respiration 40; heart's action weak; bowels tympanitic; urine passing unconsciously; tongue dirty; sordes on teeth. The pupils—unaffected by a bright light, were fixed, widely dilated, and equal; the conjunctivæ blood-shot.

An infant brother of his died, sometime ago, of water on the brain. The parents are both affected with strabismus, one very much so; otherwise, they are healthy.

I ordered a terebinthinate enema at once; the head to be shaved, ice applied, and a powder, three times a day, as follows:—

℞ Hyd. cum creta gr. iij.
Pulv. jacobi veri gr. ij.
Pulv. aromatici gr. j. Misce fiat pulvis.

I allowed cooling drinks, and chicken-broth. In about a week the gums became slightly affected, though the symptoms were much the same; the insensibility and screaming continued; the temperature of the body was diminished; tongue brown. I advised a blister to the head, a dressing for it of unguentum hydrarg.; the powders still, and a little brandy very frequently. He used so freely the spirit, that for the next fortnight his consumption was half a-pint in twenty-four hours, I was informed. After the twentieth day, he gradually returned to his senses, regained his appetite, and made a good recovery. He has ever since enjoyed health. He, however, appears somewhat dull in comprehension, and has a remarkable dilatation of the pupils.

SYMPTOMATIC CONVULSIONS.

Case 6.—I visited P. F., a male, aged 10 months, with convulsions of upper half of body. The head seemed unusually large transversely, fontanelles bulging and pulsating. He lay listlessly in the nurse's arms, with opisthotonos; eyes half open, glassy, pupils slightly convergent, dilated, insensible to light; lips asunder, now and then quivering; hands bent inwards, fingers crooked; respiration feeble; pulse slender, very quick; skin cold, damp, wrinkled; features pale, apparently œdematous, blue around eyes and mouth; veins of temples and forehead dark, prominent; abdomen large, pendulous; urine abundant, stools watery,—both running away. The spasms recur four or five times in the day, are increasing in length, and during the attacks the eyes wink quickly, the arms syncronously jerk upwards.

For a few days I prescribed grey powder, and counter irritation by the frequent application of small blisters to the head; and a generous diet of chicken-broth, wine, &c., but finding no satisfactory result from this course, I substituted for the powders, the syrup of the iodide of iron, which I had often seen beneficially used in such cases, at the Institution for Children, by my distinguished friend Dr. Moore. This remedy also proved useless, as the child sank rapidly, and died on the eighth day of my attendance.

Much light is thrown on the case by the annexed particulars. The child was considered very healthy at birth, subsequently got incisor and some molar teeth without much trouble, and up to its eighth month throve well. It then began to decline, had occasional derangement of bowels, irregularity of appetite, and restlessness. About a week before I was called, it began to roll its head, toss its arms about, and, on the day before my first visit, convulsions appeared. Its father has a strong constitution. The mother's family are consumptive. Two former children of these parents died at an earlier age of water on the brain. The present case occurred in my practice nearly five years ago, the notes of which I have given. In a few months after that time, the mother being pregnant, consulted me with a view of anticipating, if possible, a similar fate to her coming infant, as had befallen her previous children. I ordered her cod-liver oil, iron, generous diet, and change of air, by which means she grew very hearty, had a female child at eight months, which is at present about four years old, and is smart and strong.

Case 7.—Jan. 10—At 7 A.M., J. J., a lad aged 7 years, while in bed, became unexpectedly ill with general convulsions, loss of consciousness and sensibility, which had continued with scarcely any intermission, up to my arrival at 8 A.M., when his condition was lamentable. His parents were endeavouring to control his violent movements, and to prevent his tossing himself out on the floor. His decubitus was supine, with pleurosthotonos of right side. I observed that the right arm was most strongly convulsed. The tongue was protruding, swollen, and lacerated; face dusky, congested, its muscles affected with a spasmodic action, as if under electric shocks; eyes firmly closed, pupils contracted, insensible to light, conjunctivæ suffused; skin, especially of head, hot; hands clenched; respiration hurried, irregular; heart's action rapid, nervous; pulse small, quick—120; bowels soft, regular. I could find no tumours at nervous centres, or peripheries. There was no hereditary disease in his family, and he had been thought a very healthy boy. A few days ago he caught cold, since which he has been dull, and fond of the fire. On inquiry, I learned that for more than a year he had had otorrhœa of left ear, which, however, had ceased lately.

I ordered four leeches to be applied over the left mastoid process, sinapisms to the calves of the legs, and, should consciousness return after the leeching, I prescribed to be administered—a brisk aperient of rhubarb and calomel with castor-oil in two hours subsequently.

In the evening I found him in a very satisfactory state. I was informed that before the leeching had been completed, the convulsions ceased, consciousness returned, and soon afterwards the otorrheal discharge re-appeared. He now complained of soreness all over, pain in the left ear, noise in the head. Having examined with the speculum the external meatus of the left ear, I observed that the mucus membrane and the tympanum were inflamed, and covered with thin purulent matter. By continued counter-irritation over the left mastoid process, syringing with suitable astringent lotions, and by general tonics, the boy, in a few weeks, perfectly recovered his health.

The obstacles to a correct diagnosis in this class of diseases are many and peculiar. Amongst the latter is commonly, inability of the patient to make known his ills. His frail organism, ever changing, developing, susceptible of disturbance from slight causes, yet so wonderfully recup-

rative, also increases our difficulties, and shows the necessity of careful examination of the sensible phenomena of the case, and of precise knowledge of the antecedents of the little sufferer. In him trifling violations of nature's laws are visited with severe penalties. While, on the other hand, our efforts to restore his health are in general amply rewarded. Guided by those views in my investigations, I was led to conclude that the prime pathological origin of the convulsions in each of the foregoing cases was as follows :—

Case 1.—Irritation of digestive organs, caused by improper food.

Cases 2, 3, 4.—Dentition, and absence of proper counter-irritation, *e.g.* of bowels.

Case 5.—Fever, which preceded and attended the paroxysms.

Case 6.—Tuberculosis. The hydrocephalic evidences were, bulging of fontanelles, dilated pupils, convulsions, history, &c.

Case 7.—Cerebro-meningeal derangement in left hemisphere, probably near medulla oblongata. The violent action of right arm, and the history decided my diagnosis.

One of the most ordinary causes of disease in infancy is unsuitable nourishment, which often creates derangement of bowels and convulsions. Case 1 is an example of this, and of the restorative power of a mother's milk. In the absence of the latter, I have in many instances found that, two-thirds of fresh cow's milk, with one-third of boiling-water and a little sugar,—combined, make an excellent substitute for at least the first three or four months, after which the infant tires of it, unless a little arrowroot, corn-flour, biscuit powder, or the like be added. Human milk, unlike that of herbiverous animals, is produced from such a variety of *ingesta* that it seems peculiarly adapted to the demands of the infant economy, with which it always agrees; and experience testifies to its capacity of alone supporting mature life, and supplying all its wants. If the child suffer from flatulence, irritation of bowels, and diarrhœa, or be of low vitality, from five to ten drops of brandy may be added to each bottle of food, with great advantage. I have so frequently observed the efficacy of this simple adjunct, under such circumstances that, I rely upon it to the exclusion of oil of anise, syrup of poppies, "soothing syrups," or other *nostrums*, in high repute with "baby-farmers" and indolent nurses, but which too often purchase a temporary quiet at the cost of the general health, and sometimes of life itself.

The wide-spread, but happily declining, prejudice against bottle-feeding, rests chiefly upon examples in which there was negligence, or ignorance as to the details of that method of nursing. What wonder that bad consequences should follow the use of sour, reboiled, or adulterated milk, unclean bottles, impervious or worn-out mouth-pieces and tubes ! I have again and again traced the failure of this system of feeding to some of those sources, and as often have I been gratified with the success resulting from attention to the following directions :—

1. Make only as much food as may be required for present use.
2. Let the milk be pure, fresh, and unboiled.
3. Add to it one-third of boiling water on going to feed.
4. Add also a little sugar, brown or white, according to the state of the bowels.

The bottle and its fittings should be always perfectly clean. This may be more easily secured by having two bottles, one of which, on being used, should be immediately rinsed with warm water, and kept in a basin of cold water until again required.

Dentition is a fruitful originator of convulsions, as exemplified in Cases 2, 3, 4. And here I must record, as the sum of my experience, a humble protest against the too prevalent, indiscriminate, and, I had almost said inhuman, practice of scarifying the gums during this natural process. It may be noticed that, in Case 2, that proceeding did not relieve, but intensified and multiplied the fits. I have invariably observed that, in children otherwise healthy, the excitement of teething and its occasional consequence—convulsions, may be controlled and finally subdued, by keeping the bowels rather free, on the principle of counter-irritation and derivation, I presume. Whether such be the explanation or not, it seems consistent with natural laws, and with our physiological knowledge, that, as far as possible, local interference with such developments as teething ought to be avoided; and that, we should try to modify any unusual excitement during that function, by constitutional means, after the manner in which our venerable instructor nature, is wont to assuage such ills. Thus, during dentition, we observe her counter-actions upon cutaneous surfaces, causing white or red gum-rash, crusta laetea, &c.; or upon mucous membranes, as of the alimentary canal, the bronchi, or nares, producing diarrhœa, bronchitis, or a semblance of coryza. Such may be called the safety-valves of dental irritation. This appears to me to be a point of the greatest importance in connection with the management of dentition, and I would respectfully solicit observant practitioners to scrutinise it more thoroughly in the light of natural and morbid physiology, and with the view of reforming the old sanguinary treatment.

The occurrence of convulsions in the course of infantile fever is unfrequent, and in my opinion is not always a mere sympathetic expression. I should rather say, it is more commonly a development, at a nervous centre, of the morbid influence which imbues the whole economy. And as such, in Case 5, my treatment was specially directed to the removal of the nervous lesions, since I could not cut short the fever. The early announcement of the typhoid character of the latter was valuable, as indicating the means to be employed, and in particular the necessity of timely stimulation, for the remedying of the cerebral complications.

As a preparation for special treatment in infantile convulsions, I have generally prescribed a mercurial aperient, and castor oil after it. In some cases, this course repeated occasionally, has been all that was required. I have always been pleased with the effects of counter-irritation, especially by sinapisms. Alteratives, such as grey powder, or James's powder, have appeared to me requisite where hepatic or gastro-enteric derangement were manifested—by the character of the stools, the skin, the rigid and sensitive state of the abdomen, and not least of all, the history of the patient, as in Case 1.

My reasons for giving such large doses, particularly of mercury, in those diseases were—1st. I made allowance for waste in administration. 2nd. Experience taught me that, in such cases, especially in teething, means unusually powerful, are necessary to divert the irritation to the bowels. 3rd. As regards mercury, it seems to me to act, in the infant system, more as an aperient, gentle stimulant, and alterative, than as a syallogogue. I consider it to be specifically indicated in diseases of local irritation, by increasing generally, the action of the absorbents, without salivation, or the other depressing effects which it produces upon adult life. Possibly, the undeveloped organic state of the infant ensures for it immunity from the objectionable effects of this medicine, in the same way in which that tender period is exempted from many of the ills which afflict more mature years.

As I have already prolonged this paper more than I had anticipated, I shall reserve for a future occasion some further remarks upon this very important subject, and particularly upon convulsions of hydrocephalic origin, which deserve a special consideration.

REBUILDING OF THE MEDICAL HOSPITAL OF THE ROYAL INFIRMARY OF EDINBURGH.—The meeting which is to be held in the Music Hall on Friday, under the presidency of the Lord Provost, for the inauguration of a fund to be raised for the rebuilding of the Medical Hospital of the Royal Infirmary of Edinburgh, will be one of the most important which has been held in this city for many years. The work to be accomplished is one of great magnitude, and the estimated cost is nearly £100,000.

REPORT OF A CASE OF CHRONIC RHEUMATISM AND DYSPEPSIA, AND A CASE OF PSORIASIS INVETERATA, SUCCESSFULLY TREATED BY MEANS OF TURKISH AND MEDICATED BATHS.

By N. J. BUTLER, L.C.P.I., L.R.C.S.I.,
PHYSICIAN TO LA MAISON DE SANTE, NORTH GREAT GEORGE'S-STREET.

My chief object in reporting the two following cases is to bring under the notice of the profession the great value, particularly in chronic forms of disease, of a judicious course of medicated or Turkish baths in conjunction with proper constitutional treatment. In London, Paris, and many of the Continental and Eastern cities, Turkish and medicated bathing is properly regarded as a remedial agent of great power, while its easy application and the comfort it affords the bather, render it a favourite remedy with both physician and patient. In Dublin, perhaps, more than any other city in the world, is the use of baths in any form regarded with a cold and passive indifference, which certainly cannot be due to their want of real merit as curative agents, nor yet to any deficiency of appreciative intelligence (if I may use the expression) on the part of the Dublin practitioners, a fact which their universal reputation proclaims. And yet, that such is in reality the case, I have upon the authority of one of the most venerable, and at the same time, illustrious practitioners in Dublin or any other city. I regard the present apathy of the profession on the subject not to any hostility upon their part to the use of baths grounded upon physiological or scientific data, but to the fact, that up to the present, the subject has never been brought under their observation, nor, I presume, are the majority aware that there is an establishment in Dublin at present second to none in the United Kingdom, and where every facility is afforded for fully testing the value of the different descriptions of baths. The first case that I will describe is that of J. B., æt 40, a man in rather comfortable circumstances, married, but with no family, had been suffering from chronic rheumatism for upwards of nine years. He was sent to me for the purpose of taking a course of Turkish baths, by an eminent provincial practitioner who had previously treated him with all the reputed specifics for the disease. When he submitted himself for examination before entering the bath, the following were the most prominent symptoms he presented—his face was thin and drawn, of an ashy hue, and cadaverous expression. The tongue was slightly swollen, covered with a thick creamy fur, and deeply fissured. The stomach was distended with gas, and the parietes of the abdomen boggy, action of the heart extremely feeble but normal; pulse at wrist almost imperceptible. He complained of great lassitude, loss of appetite, constant headache, and stiffness of the back of the neck, extending upwards to the base of the skull, while the pains in his loins, hip, and knee-joints rendered locomotion an exceedingly difficult and painful operation. After the second bath, he felt much improved in his general condition. The stiffness in his neck vanished, he complained less of headache, and his appetite improved. Encouraged by so good a beginning, he persevered, and after a short course of only eight baths, he was quite convalescent, being able to attend to his ordinary avocations with a restored appetite, and an increase of muscular strength, and an immunity from pain, which enabled him from not being able to hobble more than a few perches at a time, to walk a distance of six miles without the slightest feeling of fatigue. He continued in the enjoyment of good health up to a couple of months ago, when he was exposed to a whole day's rain, got his clothes thoroughly saturated, and, as a natural consequence, an attack of acute rheumatism, from which he has not yet completely recovered.

The next case is that of J. F., a young man, æt. 18, of fair complexion and robust constitution. When he consulted me he presented an excellent example of psoriasis inveterata. Every part of his body, except the scalp, was the seat of the disease, but it had selected the lower extremities as the particular field for its depredations—from the knee of each leg to the sole of the foot was one mass of diseased cuticle. In many places fissures of great depth and extent existed, and communicated an aspect at once repulsive and alarming to the limbs. Upon the right leg also two small, but deep, and unhealthy looking ulcers had formed, and these I found most difficult to heal. I commenced treatment by ordering him a Turkish Bath, which cleanses the skin and rids it of all extraneous or effete matter more effectually than any other agent with which I am acquainted, and by so doing prepares it for the application of more specific remedies. I then ordered him to take sulphuret of potash, bath every day for a fortnight, and at the same time I prescribed four drops of the liq. arsenicalis three times daily after food. Before the expiration of the fortnight, during which he had a bath every day, he was very much improved in every respect. The desquamation of cuticle was much reduced; the tormenting pruritus from which he had previously suffered intensely, was almost completely allayed, and the whole of the diseased surface assumed a healthier aspect. The small ulcers, however, previously mentioned, did not participate in the general improvement that had taken place, so I passed the nitrate of silver pretty freely over the surfaces, and ordered him to apply a linseed meal poultice the following night. He did so, and when I next saw him, after two or three days, the ulcers were greatly improved, and were secreting a much more healthy-looking pus. As, however, I did not quite like their appearance, I again applied the caustic, and followed it up by simple dressing. Under this treatment one of them completely healed, and the other became reduced to about the size of a split-pea. He now, unfortunately, regarding himself as completely cured, contrary to my advice, discontinued all treatment, and for a period of about three months he enjoyed almost perfect immunity from the disease. It then, however, returned, slightly, and as he neglected obtaining any advice or adopting any treatment for a considerable time after its reappearance, when he again consulted me it had assumed some of its former virulence. I at once adopted the same treatment that had before proved so successful, with the exception, that I alternated the sulphuret of potash with iodine and sulphur vapour-baths. The happiest results followed the adoption of this plan, and he is now again making rapid and certain strides towards convalescence. I should have mentioned that before he consulted me, he had been about nine months ill and had been pronounced incurable by more than one practitioner.

In my next communication I shall feel much pleasure in bringing under the notice of the profession the therapeutical action of some of the less-known medicated mineral baths, and if I can only succeed in obtaining for them a fair trial, I shall congratulate myself not only upon having in an humble manner contributed something towards the advancement of the profession, but also, on having done good service to the community at large.

Proceedings of Societies.

SOCIAL SCIENCE ASSOCIATION.

MARCH 30, 1868.

MR. BRENDON CURGENVEN read a paper on the Contagious Diseases' Act, 1866, and its extension to the civil population, of which the following is a full abstract:—

He stated that it was with the view of saving the country from the expenses attending the hospital treatment of diseased soldiers and sailors, and from the great loss occasioned by their absence from duty, that the War Office and the Admiralty in the year 1864, conjointly appointed a committee of eminent surgeons and physicians to inquire into the best modes of treating the diseases in question, and to suggest some methods of prevention.

He then detailed the following evidence given on the subject of prevention, which clearly showed that in those places, such as Malta, Gibraltar, and the Ionian Islands, where sani-

tary regulation and medical surveillance of the prostitutes had been in force, venereal diseases had almost disappeared.

"The regulations had been in abeyance for several years at Malta, and the consequence was, that from forty to fifty beds were ordinarily occupied in the Malta Hospital by patients who had contracted the venereal disease in the Island. After the regulations with reference to the police and the Lock Hospital had been in force for a few months, there was not a single patient, I believe, in the Malta Hospital who had contracted the disease in the Island."—*Admiral Sir W. Farnshaw Martin, K.C.B.*

"Females leading a life of prostitution were, from the time of the Knights, I believe, subjected to certain police regulations and to 'periodical personal inspection;' but in the beginning of 1859, it was found that the 'personal inspection' was not ordained by law, but was a traditional abuse of power, which may be put at defiance by the slightest resistance. The fact was artfully communicated to the peculiar class of persons concerned, and a general resistance was soon made to the practice.

"The awful consequences of non-restraint soon became apparent, more especially in the wards of the military and naval hospitals, and the Local Government was moved to enact the enclosed Ordinance, with the view of preventing the spreading of the disease.

"From its few and brief enactments the 'details of our management' can be very easily inferred.

"The operation of this law has had the effect of checking public prostitution to a great extent, besides of almost annihilating the disease.

. . . . . .

"The Malta law, you will observe, does not involve 'a system of legal recognition of public prostitution,' it does not 'license females to the unlawful occupation,' but simply places those who practice it under a kind of surveillance, with a view of obtaining a sanitary advantage by enforcing a measure which tends to mitigate or prevent the awful consequences of neglected syphilitic affections. Besides 'periodical personal inspection,' the Malta law also enjoins the establishment of 'Lock Hospitals,' without which the good results I have described would not have been obtained.

"Syphilitic affections, being thus timely discovered and forcibly placed under medical treatment, are generally primitive in their character, and consequently easily overcome. Cases of consecutive syphilis are comparatively rare, and none present those horrid forms so common where the disease is under no surveillance.

"Seasons have come during which the wards of the 'Lock Hospital' contained but one or two cases, and were it not for the inoculation from imported affections by foreigners and others, the disease would have long been extinct."—*Mr. Inglott, Comptroller of Charitable Institutions at Malta.*

"When I held the office of Her Majesty's Lord High Commissioner of the Ionian Islands, I gave a good deal of attention to this subject, and I found that the disease prevailed in all the larger islands, and that the troops suffered a good deal from it.

"It was determined to apply with care and vigour the powers given by the law as regarded registration and inspection of prostitutes, and all the women of the town were registered by the police, and periodically inspected by the police physician.

"This careful and periodical inspection was attended with the happiest results, and the disease may be said to have almost disappeared in the Islands of Corfu, Zante, and Cephalonia.

"In Malta, the same police regulations exist, and I know of no place so singularly free from venereal disease as regards the professional prostitutes.

. . . . . .

"The amount of disease and misery that would be prevented by enforcing a sanitary inspection of prostitutes is incalculable, and it is a subject which earnestly claims the attention of the authorities competent to deal with it."—*Lieut.-Gen. Sir Henry Storks, K.C.B.*

Such evidence as the above, together with that of several others who were examined, induced the committee in their report to recommend that—

"1st. A periodical inspection or examination of all known prostitutes be made compulsory, under a well-organised system of medical police.

"2nd. That a surgeon be appointed by Government in each town for this duty; the said examination to be made by him either at the homes of the women, or at a dispensary or hospital appointed for the purpose; and that such surgeon be provided with the necessary powers for sending to lock hospitals all women found to be diseased either with primary venereal affections or constitutional syphilis, and for retaining them until cured or restored to their friends.

"3rd. That a penal clause be introduced into the act for the purpose of punishing those who infringe its regulations.

"4th. That the operation of the act be extended to all garrison and seaport towns in the kingdom, where troops or ships of war are stationed.

"5th. That a clause be introduced for the prevention of the residence of prostitutes in public-houses and beer-shops."

The committee state that "they also feel that more particular instructions should be given to the borough police in the garrison and seaport towns, with a view to prevent the open solicitations by prostitutes in the public streets, and the scandalous and barefaced immorality which is spoken of by some of the witnesses as disgracing Portsmouth and other towns of the same class."

The Act of 1866 is confined to the following naval and military stations:—Portsmouth, Plymouth, and Devonport, Woolwich, Chatham, Sheerness, Aldershot, Windsor, Colchester, Shorncliffe, the Curragh, Cork, and Queenstown. It provides that the expenses attending the execution of the act shall be borne by the Admiralty and the War Office. It directs visiting surgeons and inspectors of certified hospitals to be appointed. It gives power to provide and certify hospitals; power to justices to order periodical medical examination of common prostitutes; power to detain them when found diseased, in a certified hospital until discharged by the medical officer; and power to punish women by imprisonment for refusing to be examined, for quitting hospital without being discharged, and for neglecting to conform to the regulations of the hospital. It provides that the justice's order subjecting a prostitute to periodical examination shall continue in force one year.

That she may obtain relief from examination on discontinuing prostitution; and that persons knowingly harbouring diseased prostitutes shall be punished.

The act was not put in force immediately in all the towns named, but its operation was first extended to Woolwich, Chatham, Sheerness, Portsmouth, Plymouth, and Devonport.

Mr. Curgenven stated that after the necessary appointments had been made, there was little or no difficulty found in enforcing the provisions of the act. The women and their haunts were equally well known to the police, and they experienced no difficulty in inducing the "suspects" to appear before the medical officer to be examined. Compulsory examination of all the women has not yet been adopted, as there would not be sufficient hospital accommodation to receive those found diseased. Those only are examined whom the police suspect to be diseased, or who are informed against by a soldier or sailor. This is one of the defects in the present working of the act, for a woman must be very ill, or show some outward sign of her complaint, to be suspected by the police; and, again, a woman may spread a considerable amount of disease before she is informed against.

One obstacle to the effectual working of the Act has been the want of hospital accommodation. About one-third the total number of women is found to be diseased. London, therefore, with about 10,000 common prostitutes, would require 2500 beds; but this number might be reduced to perhaps 1200 beds. A large number of beds would be required only for the first year or two, if the Act were effectually carried out, for, by the example of Malta, the forty or fifty beds occupied before the regulations were put in force, were reduced to one or two after the surveillance had been exercised a few months.

A third obstacle to the effectual working of the present Act is the limited number of towns that have been placed under its provisions. Constant changes take place amongst the troops of our garrison towns, and ships are as often passing from one port to another, and it is always found that with any arrival of troops or sailors from an unprotected town, in one that is under the protection of the Act, fresh disease breaks out, not only amongst the women but also necessarily amongst the men in garrison or in the harbour. Women also are constantly passing from one town to another, and following troops from one garrison to another; they likewise import new foci of disease.

Mr. Curgenven then turned to the good results derived from the Act. The army statistics for 1864 showed that of an average number of 73,000 troops stationed in the kingdom

there was a "loss of service by venereal diseases in the whole force, of nearly an entire week of that body's time.

During the year 1864, a total of 4385 cases of syphilis were under treatment in the royal navy, of which 1 died, and 101 were invalided. The daily loss of service from this disease was equal to 460 men.

The reduction of the amount of disease in the army by the operation of the Act although considerable is not as evident by statistics as in the naval and marine services. Among the troops in garrison at Plymouth and Devonport the number diseased was in April, 1865, 18 per 1000; September, 31; March, 1866, 28; September, 21; March, 1867, 13; September, 35.

These fluctuations in the amount of disease in the troops are due to the periodical arrival of regiments from unprotected garrisons bringing disease with them.

The marine division at Plymouth being a stationary corps, the beneficial operation of the Act in their case is very evident; the number of men diseased having fallen, with but slight fluctuations, from 24 per 1000 in April, 1865, to 12 per 1000, in October, 1867. In the navy, also, the numbers have diminished from 21 per 1000 in April, 1865, to 4 in October, 1867.

While the amount of disease among the naval and military population has diminished, a marked decrease has also taken place amongst the inhabitants of these towns. There is an absence of the severer forms of the disease, that formerly entailed acute suffering and death, the constitutional form which conveys the disease to the innocent wives and children has greatly diminished as seen by comparing the entries into Melville Hospital, Chatham, for the third quarter of 1864 with those of the corresponding quarter of 1867:—

1864	Syphilis	95	1867	Syphilis	45 cases.
——	Gonorrhœa	21	——	Gonorrhœa	33
	Total	116		Total	78

Many of the women who enter the hospitals do not return to the streets.

At the Royal Albert Hospital, Devonport, about one-third of those admitted are sent home to their friends or into refuges.

The obvious moral objection to the Act, that it removes one chief deterrent for the sin of fornication—viz., the fear of contagion, was greatly modified to the minds of the clergy present (at a meeting at Chatham) by the experience of the Rev. J. G. Baily, the chaplain of St. Bartholomew's Hospital, Chatham, who stated his conviction that the Act was the means of bringing under religious and moral instruction many scores of degraded women who had never been under such influence before; and that, during his chaplaincy of only ten months, no less than thirty-nine of these unfortunates had been restored to their homes, or induced to enter reformatory institutions.

One other benefit derived from the Act is that it prevents young girls, who are not depraved, from becoming prostitutes through the fear of surveillance and examination. It also tends to prevent soldiers' and sailors' wives living as prostitutes in the absence of their husbands, through fear of incarceration in hospital, and the consequent discovery of their evil lives.

Mr. Curgenven next recapitulated the labours of the society, of which he is one of the Honorary Secretaries, showing that with a view to open the subject for discussion and inquiry in England the Harveian Society of London, in February, 1867, appointed a committee to investigate the extent of the spread of venereal diseases among the population: "to discuss the best means of preventing that widely extended evil, and to report thereon to the International Congress in Paris."

This committee issued circulars to the surgeons of all the hospitals, and nearly all the dispensaries and infirmaries in the United Kingdom, and to all the workhouses in London, Manchester, and other large towns. By this means they gained a great amount of information as to the actual amount of venereal disease existing amongst the patients and applicants to these charities. The amount of the existing disease exceeded their anticipations. At St. Bartholomew's Hospital about one-half of the surgical out-patients' cases were venereal. At St. Guy's Hospital, out of 295 surgical cases, seen by Mr. Cooper Forster, 174 were venereal and 121 non-venereal. At the other hospitals in London the proportion ranged from one-fifth to three-eighths of the surgical out-patients. At the Eye and Skin Hospitals the proportion varied from one-eighth to one-fifth of the cases seen. At the Children's Hospitals the number amounted to one-fifth of the surgical cases. At Manchester and other large towns the amount of disease was about the same, averaging from one-eighth to one-third of the surgical cases. In addition to the great amount of venereal disease thus shown as being treated at the public charities, an equal if not greater number of cases come under the hands of chemists and quacks, to say nothing of those seen in the private practice of the profession. Thus the Committee at Manchester, co-operating with the Harveian Committee, in their reports say, "We are fully convinced that the quacks and chemists attend a large proportion of the entire number of venereal cases occurring in Manchester." The same is the case elsewhere, and there prevails in some places an extraordinary notion which prevents sufferers with this disease applying at the hospitals. Mr. Cardell, writing from Salisbury, says, "You will scarcely believe that there is a prevailing notion here (not only amongst the lowest orders) that if venereal patients got very bad in the hospital they were smothered."

The report of its committee was adopted by the Harveian Society in July, 1867, when a resolution was passed directing that a translation should be read before the Medical Congress of Paris by a deputation from the society. It was also determined that the evils revealed and remedial measures suggested, should be brought before the public, and the assistance of all those interested in the subject enlisted for the purpose of bringing the suggestions of the society within the sphere of practical legislation.

It was resolved:—

"That it is the opinion of the Society that an association be formed, to be called 'The Association for promoting the Extension of the Contagious Diseases Act of 1866 to the civil population;' that it should be composed of both lay and medical members, and that the gentlemen comprising 'the committee for the prevention of venereal diseases,' be asked to act as a provisional committee (with power to add to their number), for the purpose of organizing such an association."

This offspring of the Harveian Society has already been fully noticed in our columns. It numbers upwards of 500 members, and its objects are—

"To promote the extension of the 'Contagious Diseases Act' of 1866 to the Civil Population of the United Kingdom."

"To promote measures for increasing the amount of hospital accommodation for poor persons afflicted with contagious venereal diseases."

"To assist in every way the establishment of Refuges or Homes in connection with Lock Hospitals, for the purpose of receiving women who desire to leave their previous mode of life, and helping them to obtain respectable employment, or to emigrate."

MEDICAL SOCIETY OF LONDON.

March 30th, 1868.

Dr. Richardson, F.R.S., President, in the Chair.

Ten new Fellows were *elected*, and eleven candidates proposed.

ALOPECIA.

Mr. Hunt showed an example of complete recovery after alopecia. The patient, a steam-stoker, lost all the hair from the scalp at the age of 14. Mr. Hunt's treatment consisted in the internal administration of the chloride of arsenic and topical ablution with cold water; after treatment for 2½ years, there was complete recovery.

Mr. Rogers Harrison and Mr. Dunn, considered that recovery from alopecia occurred spontaneously or by the use of topical stimulants alone.

Dr. Chapman considered that arsenic in virtue of its tonic action upon the capillary circulation effected the same object as external stimuli.

Dr. Broadbent said that alopecia occurred quite independently of the course of nerves.

Dr. Tilbury Fox had seen equally good results follow the internal administration of dilute nitric acid. He considered the sporules, &c., of the fungus co-existing with alopecia to be very minute, and therefore frequently overlooked.

IODIDE OF METHYL.

The President exhibited a specimen of iodide of methyl, which he said was the most energetic of all known iodine compounds, and he thought promised to prove of the greatest use in practical medicine. The iodide was first experimented with

physiologically by himself, in the course of last year, and was reported on by him to the meeting of the British Association at Dundee. It is made by distilling wood spirit with iodine and phosphoros; it boils at 110° Faht. and its composition is CH_3I. It is a very heavy fluid, its specific gravity being 2199, its vapour density is 71. In the concentrated form the fluid is rather easily decomposed, free iodine being given off. Methyl can be administered by inhalation, and so given it produces general anæsthesia; but if it is undergoing change, the free iodine causes lachrymation, salivation, and excessive bronchial secretion; in an experiment, an animal died from the artificial bronchitis thus induced. The iodide of methyl can also be given by the mouth, one minim being equal to three grains of iodide of potassium; of all the iodides, it possesses the greatest activity of action on the body, it neutralises organic poisons and may be expected to be of service in tertiary syphilis specially. At his, the President's, request the iodide of methyl was now being tried in some cases of cancer at the Middlesex Hospital by Mr. Nunn, but sufficient time had not elapsed to report results. The facts, when sufficiently ascertained, would be brought before the society—the iodide of methyl also produced new compounds with some organic bodies, such as nicotine and other alkaloids and the author had endeavoured to make it applicable as an antidote. On this principle, iodide of methyl should be prescribed in a solution of mere mythylic alcohol.

The PRESIDENT concluded by referring to the antidotal effects of iodide of methyl on the alkaloidal bodies, such as strychnine; and to the substitution principle in therapeutical research.

NEW MODE OF TREATING THE CONJUNCTIVA.

Mr. SPENCER WATSON exhibited some discs composed of cocoa-nut butter, mixed with tannin and other astringents for ready application to the conjunctiva; passed beneath the upper eyelid, they melt, and diffused over the whole conjunctival surface, they possess many advantages over lotions; and cases of pannus with granular lid have been much benefitted by such treatment.

RUPTURE OF SPINAL CORD.

Mr. HENRY LEE showed a specimen of rupture of interior of spinal cord from concussion. Two cases in which the concussion had been induced by a fall upon the vertex had recently come under his care, in each there was complete sensory and moter paralysis, with diaphragmatic breathing. The seat of lesion was accurately diagnosed ante-mortem. Death occurred from apnœa. Such cases are sometimes related with the announcement that the cord had sustained no injury; this would have been said now, had the external portion alone been examined; it was only on longitudinal section of the spinal cord that the cause was apparent. A portion of the nervous substance was softened, and of a bright red colour.

Mr. HENRY SMITH brought forward a young girl, whose knee he had excised three months previously. The limb had been condemned to amputation, and the patient was in a state of extreme debility. Now this was a most useful limb, and the patient was in florid health.

ON SOME EXCEPTIONAL MODES OF THE TRANSMISSION OF SYPHILIS.

The paper of the evening was then read by Mr. VICTOR DE MERIC.

The author urged the value of etiological investigations that are easily undertaken in cases of communicable diseases. Though the history of the propagation of syphilis is generally well understood, there is yet much obscurity as regards some modes of its transmission, and especially as to the phenomena following contamination by secondary manifestations; moreover, at the outset it is difficult to understand why primary lesions affect certain parts of the generative organs, in preference to other parts equally exposed. The evidences of contamination are usually slight, so slight, sometimes, that we fail to discover them. The author related seven examples to illustrate his remarks, which are briefly as follow:—1. A lady, æt. 60, infected by her grand-child. 2. A gentleman of 40, covered with secondaries, no trace of primaries ever manifest. 3. Wife, æt. 23, communicating disease to husband by buccal symptoms, no affection having followed co-habitation. 4. Mucous tubercles on vulva of girl, psoriasis palmaria following, no initial symptoms. 5. Insidious secondaries in young girl, habitually watched and examined. no primaries. 6. Unexplained mucous signs in anal region of child. 7. Severe syphilis in a newly married lady, husband ever free from disease. Mr. De Méric concluded by stating that we should not (at once) attempt to explain exceptional cases by uncharitable surmises, but study the facts indicating unusual modes of transmission of which experience convinces us.

An animated discussion ensued, in which Mr. Bryant, Mr. Julius Levy, Mr. Dunn, Mr. Spencer Watson, and the President took part.

Mr. HENRY LEE advanced an important theory, to which observation had led him—that pregnancy seems to awaken a power of transmission in the dormant virus, as if the disease-germs, under such new condition, attained a higher vitality. The author replied, and in answer to Mr. Levy, stated his opinion, that the assumption of a urethral chancre was not a feasible explanation of doubtful cases, for such could scarcely exist without local symptoms leading to its discovery.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, 18TH MARCH.

The President in the Chair.

PURPURIC MEASLES IN SYDNEY, N.S.W.

IN the absence of the Secretary, Dr. Atthill read a communication which had been received by Dr. Hayden from his friend Mr. Walter J. Carroll, L.R.C.S.I., of Sydney, New South Wales. The following is an abstract of that communication:—

Mr. Carroll had observed from the Medical Journals, that much controversy had arisen in Dublin relative to an epidemic which had been called purpuric fever, febris nigra, and by other names. He had observed an analogy to exist between the so-called febris nigra and a form of malignant measles which he had of late met with to a large extent in the course of his considerable private practice in Sydney. In the first five months of 1867, a most severe and general epidemic raged there. It commenced so mildly that of the first 250 cases treated by Mr. Carroll, none died. "Unfortunately (observes that gentleman) I soon met with a most malignant form of the disease. In this the eruption was always darker than it ought to be, sometimes purple or chocolate; and persistent often for eight or ten days, if the patient lived that time. In some cases of greater malignity, only a few dark spots, sometimes so few indeed as to escape notice, appeared on the face or thorax, while on the extremities three or four vesicles would form, which would appear in the morning, perhaps no larger than a flea-bite, and at noon would be so extended as to involve a surface equal to the disk of a stethoscope, at which size they would usually break, exposing a black or chocolate surface, gangrenous to the sight and smell." This, if the patient still survived, usually spread so as to lay bare and raw within twenty-four hours, almost the entire surface of the body. "In all forms (continued Mr. Carroll) the tendency to convulsions was most remarkable." The attack was frequently ushered in by them, and nearly every fatal case terminated by them. "Some cases, which undoubtedly gave evidence of ventricular effusion and spinal lesions, were remarkable for the duration of life, when complete paralysis of all voluntary muscles, and complete inability to eat or drink existed." Patients perfectly and hopelessly comatose have existed ten and twelve days on nutritive enemata. None of the resident practitioners, who all treated more or less of them, doubted their being measles; but Mr. Carroll's practice "being more among the middle and working-classes, and very much among the clubs," he saw and treated more cases than any other person in Sydney. His cases he computes at 900, and his loss by death at 6 per cent.

Contrary to the general law of epidemics, this came in mildly, and gradually became more severe and fatal, and so continued to the end. An aphthous condition of the mouth and intestinal canal was observed in many cases. Gangrene and complete sloughing of the cheeks occurred in some instances. Beside the marked tendency of the epidemic to induce cerebral and spinal complications, almost every case showed evidence of more or less spinal irritation. "Dysentery and diarrhœa were very prevalent, and often most intractable. Inflammation, simply of the large intestine, often demanded attention, when all other symptoms were light."

Mr. Carroll's treatment was most stimulating in all cases. "When the disease was severe (he observes) quinine and turpentine were freely given. Where irritation of the spinal canal was present I gave, night and morning, half a grain of calomel, besides, every two hours alternately, I gave two or three minims of spirit of turpentine, and an astringent antacid mix-

ture containing tincture of opium and trisnitrate of bismuth. Of the many modes I tried I found this the best. The calomel acted gently on the liver and improved the secretions. Brandy, port-wine, isinglass, and beef-tea, where permissible, were freely given.

"Some persons here used largely the bisulphites of soda. I cannot, however, speak freely of them, as my experience was limited to two fatal cases. Many do, however, praise them highly here. I have administered chlorate of potass. It was of service, but not equal to the turpentine. I sometimes thought that it had provoked that severe irritation of the bowels, which was sometimes diarrhœa and sometimes dysentery, and always hard to manage. To the rectified spirit of turpentine, given in an emulsion, with or without quinine in solution, my most marked recommendation is given. It surpasses all other stimulants, being most rapidly diffused, and maintains the circulation in the engorged capillaries of the lungs, the integuments, or the extremities. Under its use I have seen respiration improved, the eruption grow brighter, and the circulation increased, heat being generated. It is, therefore, indirectly if not directly, an oxygenizer of the blood. The dose which I have named above is a medium one for a child one and a-half years old."

When this paper had been read an interesting discussion ensued, in which several members took part; and a general desire was evinced to encourage communications of this kind, from their highly useful and practical tendency. A vote of thanks was given to Dr. Hayden for his kindness in bringing before the society Mr. Carroll's most interesting letter to him, and he was requested to communicate to that gentleman the views expressed during the discussion as to the utility and interest of the letter itself, and of similar communications.

Correspondence.

ORNAMENTING THE WALLS OF HOSPITAL WARDS WITH PICTURES AND PRINTS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have read with pleasure in your last number a leading article on the ornamenting of the walls of hospital wards with pictures or prints, to vary the dull monotony of the view, and to present objects that might be productive of pleasure and instruction to the patients.

I also concur with you in your observations that in choosing Scripture extracts as the decorations of the walls of hospital wards it is difficult, if not impossible, to select such as would be applicable to all.

Many years ago I was desirous of introducing a cheap decoration for the walls of the wards of the Whitworth Hospital (one of the House of Industry Hospitals), and I can now recommend, after an experience of some years, the system I adopted in principle and practice.

I foresaw the inconveniences that might arise from leaving the selection of pictures and prints as decorations of the hospital walls to private benevolence, as charitable persons, however well intentioned, might send pictures or prints that would not be acceptable to all, and thus the governing body of the hospital would be placed in the unpleasant predicament of either refusing the kindly meant donation, or of placing in the wards, pictures or prints that they could not approve.

I wanted, therefore, a tribunal to decide upon such prints or pictures as might, without offence to any or all, be placed upon the walls of my wards, and, after much consideration, I selected a tribunal to select the prints for the decoration of the walls, and I am proud to say that the prints selected by that tribunal have not given offence to any, and have given satisfaction to all—patients, attendants, chaplains, and governors.

The tribunal I chose is the *Illustrated London News*, and the prints selected for the decoration of the hospital walls are the chromographs published two or three times a year in that journal.

Those chromographs are laudable as works of art, are pleasing to the eye from the brightness of colouring, and are always directed to the cultivation of good taste and kindly feeling.

Latterly I have been able to supplement these with similar contributions from the *Illustrated Melbourne News*.

Now for a word as to the mode of mounting them. It was, of course, an object to have them set up with as little expense as possible, and some of my pupils, desiring, with their usual kind feelings to the sick, to aid me, undertook to fix them on thin pasteboard backings, and then varnish them. This was done, but it was found that after some time the backings warped, and that the face of the prints became discoloured from the dust and air of the ward.

They are now set up, on the recommendation of Mr. Mullen, Steward of the Hospital, in very plain frames of narrow gilt beading, with plain glass in front. This framing protects the prints, gives a finish to them, and does not cost more than about two shillings for one of the large sized chromographs.

These chromographs are published, I think, two or three times a-year, and an abundance of them can, I am sure, be always obtained *gratis* for hospitals from purchasers and subscribers of the *Illustrated London* and *Australian News*, and thus, for an expense of one pound (the price of framing), ten prettily coloured and improving pictures can be obtained for a hospital ward.—Your's truly,

D. J. CORRIGAN.

Merrion-square, W., April 5, 1868.

JUVENILE SCRIBBLERS ON THE HEALTH OF EUROPEAN SOVEREIGNS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I was delighted with your witty remarks upon the nonsense that has been for the last few months circulated by your so-called *medical* contemporaries, respecting the health of European sovereigns. Some of the juvenile scribblers for these journals would be delighted to be thought well-known courtiers, though every one knows when they do not invent their silly statements, they merely echo second-hand rumours set afloat by idlers *outside* club ranks. The pretence to fathom the secrets of the Vatican may be looked upon as the culminating point of this folly. Personal experience in Rome satisfies me that no reliance is to be placed upon the news circulated by those who are really cognizant of the facts. How then can a young doctor waiting for practice, and filling up the interval by writing paragraphs for a London medical newspaper, know anything about it? For him to sit in his back-parlour and pen a sketch of the health of the Pope savours of confidence in the ignorance of the reader that is positively ridiculous. Surely the force of folly "can no further go." As to the editors who insert such stuff for the sake of getting it quoted in the daily press—which is the only point aimed at—they are guilty of one of the most offensive forms of quackery, and I trust you will again favour them with some of your able sarcasms.—I am, &c.,

ROMANUS.

THE PROFESSORSHIP OF HYGIENE IN THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE election to this chair, vacant by the resignation of Dr. Mapother, Professor of Anatomy and Physiology, took place on Thursday last at three o'clock, at which hour the Vice-President and Council and a number of the Fellows of the College were present. The gentlemen whom we enumerated last week—Dr. C. F. Moore, Dr. Cameron, Dr. J. Little, and Dr. Hewitt—presented themselves as candidates, and their respective letters of application were read by the Secretary of the College at the table. The Vice-President then, in accordance with the bye-laws, called upon the Junior Fellow in the room to draw from the box the numbers of seven members of Council to act as electors. The gentlemen on whom the lot fell having been duly sworn, retired to consider the claims of the candidates, and, after a prolonged absence, returned, and the Vice-President declared Dr. Cameron duly elected.

The election was regarded with some interest, as two of the candidates, Dr. Cameron and Dr. Little, were not members of the College, while Dr. Moore was a Fellow, and Dr. Hewitt a Licentiate.

Dr. Cameron, who has been selected for the vacant Professorship, is Analyst to the City of Dublin Corporation, and a Chemist and Lecturer of attainments and position.

NOTICES TO CORRESPONDENTS.

Proofs reaching authors in England on or before Friday morning are expected to be returned to the Editor, at the office, 20, King William-street, Strand, W.C., before five P.M., on Friday afternoon. Proofs reaching authors on Friday evening or Saturday morning *must* be returned to the office by two P.M. on Saturday, which is an early closing day. Duplicate proofs are sent to authors, in order that they may correct and return one copy, and keep the other for private use. Contributions should be LEGIBLY written, on one side of the paper *only*.

Owing to the pressure on our columns we are obliged to hold over several Letters and Communications.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 22, 1868.

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FURTHER OBSERVATIONS ON CHRONIC HEART DISEASES.

By JOHN C. THOROWGOOD, M.D.,

ASSISTANT-PHYSICIAN TO HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.

ON MITRAL CONSTRICTION.

RECENT medical observation and research has done much to facilitate the diagnosis of constrictive narrowing of the mitral orifice from mere mitral incompetency with regurgitation of blood back from the ventricle to the auricle.

Some may think it a matter of needless refinement to take pains to distinguish between these two morbid states of the mitral aperture, but this is not the case, inasmuch as useful therapeutical rules depend on the correctness of the diagnosis; hence, although the question is often one difficult of solution, it is one worthy of some time and attention on the part of the physician. We proceed to lay down what appear to be the best guides to the diagnosis of a constricted mitral aperture, and then to speak of the prognosis and treatment of these cases.

The onward passage of the blood from the left auricle into the ventricle through an orifice that is abnormally constricted and narrow is frequently attended with a murmur having certain characters which distinguish it from the murmur of mitral regurgitation.

The murmur of *mitral regurgitation* is distinctly systolic, it is loudest at, above, and rather to left of, the apex, beat, losing quickly in intensity and pitch on passing to the cardiac base. At the inferior angle of the left scapula, and beside the dorsal vertebrae, from the sixth to the ninth, the murmur is more or less clearly audible; as we should expect, remembering that this is a backward, not a direct, murmur, and is caused by blood flowing back from the ventricle into the auricle.

The murmur of *mitral constriction*, on the other hand, is a direct murmur, and occurs at the time when the ventricle is filling from the auricle, hence it is not systolic in rhythm, nor is it diastolic, as sometimes stated in books, but it is post-diastolic, or pre-systolic, and this last seems the better term, since in a well-marked case, this murmur is caught just before the systole, running up as it were to the first sound. When strongly developed, it may completely cover the second sound at the left apex, but it is not often loud enough to do this.

With respect to situation, this murmur is loudest at, to right of, and above the apex beat; it is very soon lost, passing upwards and towards the left, and is not audible at the inferior angle of the scapula.

When the murmur is uncomplicated with the murmur of mitral regurgitation, and it may occur where the mitral valve is quite competent, loudness of the second sound over the pulmonary artery is a sign that, according to Stroda, the case is one of narrowing of the mitral orifice, rather than of mere roughness of the surfaces.

Reduplication of the second sound at the base may be noted, and is due to want of synchronism between the actions of the two sides of the heart.

In character this murmur has been described by Dr. Flint, of New York, as "somewhat rough, resembling the sound produced by throwing the lips into vibration by the expired breath. When this character of sound is strongly marked I have called it a *blubbering* murmur. This character of sound I suppose to be due to the vibration of the curtains which compose the mitral valve. It is heard with its maximum of intensity around the apex of the heart. Often it is limited to a small space. It is propagated best in a direction from the apex, anteriorly towards the median line, not so well in an opposite direction. Sometimes it is so loud as to be heard over a considerable area. It is pre-systolic in rhythm, and I have three cases now under my care in the Bellevue Hospital presenting this murmur. Its presence denotes, with some exceptions, the existence of mitral obstructive lesions; but its absence is no proof that such lesions do not exist. It is present in only a certain portion of the cases in which obstructive lesions exist; and it is especially apt to be present in one variety of these lesions, viz.—when the mitral curtains become adherent at their sides, and form what is known as the button-hole contraction."[1]

Dr. Flint observes further, that this mitral direct (presystolic) murmur may be caused by aortic regurgitation, even when the mitral orifice is quite normal. He explains this by the fact that the aortic regurgitant current fills the ventricle just at the time when the mitral direct current is doing the same thing, the regurgitant aortic current by distending the ventricle approximates the curtains

1 For two excellent illustrations of the "button-hole" mitral orifice see Hughes Bennett's Principles of Medicine, page 582 of the 3rd Edition.

of the mitral valve, and then the incoming blood from the auricle throw these into vibration, and so causes the murmur.

I have not myself had opportunity to verify this observation of Dr. Flint's, but it appears to me of interest in reference to the occurrence of "tactile thrill" or "tremor" in connection with the murmur of mitral constriction. When the mitral murmur is caused in the way alluded to by Dr. Flint the probability is that the eddying together of the two currents (the aortic regurgitant and the mitral direct) in the ventricle would produce thrill felt by the hand applied in the usual way over the heart.

Those who, like Dr. Peacock and Dr. Sutton, have lately drawn attention to this mitral constrictive murmur recognize tactile thrill as a common, and yet by no means a constant, sign of this form of valvular disease, and to ascertain under what conditions this thrill does or does not occur, is a subject for further observation and inquiry.

The presystolic mitral murmur may exist by itself and with a perfectly competent mitral valve, but often it coexists with a mitral systolic regurgitant murmur; then its diagnosis by physical signs with any certainty is impossible.

The points most likely to guide us are to watch the rhythm of the murmur while the pulse is felt in the carotids by the finger; to examine for thrill over the ventricle, and to remember that the effect of the constrictive murmur is to diminish the amount of blood that passes into the left ventricle, so that the chief amount of action will be found on the right side of the heart, a significant fact pointed out by Dr. Peacock in the *Medical Times* 1867, p. 131.

With respect to the effect of a constricted mitral aperture on the general circulation it may be stated that they resemble in a measure those of mitral regurgitation.

The left auricle, having to act with extra power, becomes hypertrophied and thickened; at times a notably dull spot may be found at the left back opposite the fourth dorsal vertebra, where very marked tubular breathing is heard in consequence of the left bronchus being compressed by the enlarged auricle, and, in regurgitant disease, the murmur is distinct at the same spot.

The effect of regurgitant disease on the left auricle is to dilate and thin its walls, rather than to produce the thickening and hypertrophy, which constrictive disease causes.

Be the auricle thickened and hypertrophied, or be it dilated and thinned, the lungs are sure to suffer; dyspnœa, cough, with bloody expectoration, and in bad cases, pulmonary apoplexies, are the results, but they do not come on so fast in mitral constrictive disease as they are apt to do in regurgitant disease, nor yet does dropsy of the extremities so soon make its appearance. The pulse, in mitral constriction, is small but regular, the face pale rather than livid, and the appearances those that betoken an imperfect distribution of arterial blood over the system.

I now subjoin a few short notes of a case to illustrate the statements that have been made.

The case was marked down in my note-book as an instance of mitral constrictive disease in August last, and the patient is still under observation.

Eliza W., æt. 23, first seen August 5th, 1867. Been ill between five and six years since she had rheumatic fever. She now feels very weak, has cough, dyspnœa, palpitations, and frequent attacks of hæmoptysis. She looks pale, rather thin. Now and then has noticed very slight œdema of ankles; pulse 112, remarkably small, not hard, regular; chest well-formed, sounds well; breathing harsh at both sides, with rhonchal sounds over left; heart's impulse not extended, scarcely felt at xiphoid cartilage; at apex and to right of it a short murmur inaudible at base, and inferior angle of left scapula. This murmur seems to precede the first sound of the heart, and was noted in August as presystolic. Under the influence of tr. ferri., great amendment took place, and of late there has been no hæmoptysis.

In this case the symptoms dated from an attack of rheumatic fever five years previously; since which time the chief complaint was of great debility, with now and then hæmoptysis, the patient looked weak and anæmic, had no dropsy and no certain signs of phthisis, the pulse was very small and regular, and the interval before the ventricular systole was occupied (as I judged by several auscultations) by a murmur. The second sound over the aorta was weak, and the right heart did not seem to suffer much. Under the influence of steel much amendment took place.

From all these circumstances I judged the case to be one of narrowing of the mitral orifice, not to any great degree, for the presystolic interval was not unduly prolonged, as it is when the channel is very narrow, and the ventricle therefore long in filling, neither as yet was the right heart notably involved, hence it seemed a case that might be viewed, as the event proved, hopefully.

To conclude with a word on treatment. In cases of constricted mitral this should be pretty uniformly on the tonic plan. Good diet with moderate allowance of stimulants, and twice a day from 10 to 20 drops of tinctr. ferri in water after food. By such measures we give power to the left ventricle and enrich the blood. The iron may be changed now and then for quinine or bark, for a time, but I believe the best results will be obtained by a prolonged course of the chalybeate in small doses in simple form, and always administered soon after a meal.

Digitalis is not to be relied upon in cases of pure mitral constriction; it is, indeed, more likely to do harm than good, by enfeebling the power of the already poorly nourished left ventricle.

In mitral regurgitation, on the other hand, digitalis is invaluable for the relief it affords, while chalybeates very often embarrass the circulation, increase the regurgitation, cause hæmoptysis, and have therefore to be abandoned.

THE TREATMENT OF DELIRIUM TREMENS BY THE APPLICATION OF THE SPINAL ICE-BAG.

WITH SOME REMARKS ON THE THERAPEUTICAL VALUE OF CAPSICUM.

By D. B. HEWITT, B.A., L.K. & Q.C.P.I.,

ASSISTANT-PHYSICIAN TO THE CITY OF DUBLIN HOSPITAL.

(A paper read before the Medical Society of the College of Physicians of Ireland, April 13, 1868).

My object in bringing this case under the notice of the society is to elicit the experience of any who may have adopted a similar line of treatment, and to direct attention to a therapeutic agent not yet very generally adopted in this city. I distinctly repudiate any wish to draw any general conclusion from a single case, but I am anxious to have the question ventilated as it deserves.

James Mulholland, a strong muscular fellow, of about 45 years of age, was admitted into the City of Dublin Hospital, on the 25th February, 1868. He had served in the 45th regiment for a number of years, and since his retirement had kept a tavern. For the last twenty years he had led an intemperate life, but since he became a vintner he drank night and day for about six months, and had not ceased up to the time of his admission. At that time he was in a most excited state, and while in the hall of the hospital he shouted and kicked about in a most violent way. On being visited by me, he told me that he had taken a little too much, and then proceeded to talk to imaginary persons, and to order his wife to begone out of that. He assured me that he should get some grog, as he always coaxed his stomach in that way. He was perspiring freely; his face and eyes were congested; his tongue moist and coated with a creamy fur; his pulse was slow, full, but very compressible, and his hands were tremulous. He was ordered to have beef-tea and milk, *ad libitum*, and a bolus containing twenty grains of capsicum in ℥ss. of honey.

In about two hours he fell into a disturbed sleep, which was broken by dreams, and phantoms of dogs, horses, soldiers, and spiders; and at my evening visit I found him dozing, and comparatively free from excitement. He con-

tinued to sleep all through the night, and at the morning visit on the 26th told us that he had not slept so well for months, for that, during that time, he had never gone to bed unless when "three parts on the wind," and when the effects of the spirit had passed off he could not sleep. His pulse was 56, full, regular, and very compressible; there was some muscular tremor, especially in the tongue when protruded; his head felt hot to the hand; there was no gastric irritation, but he told us that we had cut open his belly. He had taken a liberal amount of milk and beef-tea.

In the evening he was still quiet, but talked in the same rapid unconnected way. The capsicum bolus was repeated.

About 1 A.M., on the 27th, he awoke and became very noisy and violent, insisted on getting out of bed, and walked down to the kitchen; his shouting disturbed the entire hospital.

On the 27th, at 11 A.M., I ordered him gr. xxx. of capsicum with honey, but it had no more effect than the preceding dose. The sweating and tremors were much aggravated, and he was loud in his complaints against his wife, for not having made preparation for some distinguished visitor, who, he said, was staying at his house. His thirst was excessive, but he never asked for whiskey.

On the 28th, he was worse, not having slept any. He was ordered one-twelfth of a grain of tartar emetic, and fifteen minims of tincture of opium every second hour.

In the evening he was seen by my colleagues Dr. Benson and Mr. Tufnell; he was talking in the same excited way, his head was hot, he was sweating profusely, his pulse was slow, full, and regular, he told Dr. Benson that I had opened him, but complained of no tenderness on pressure in the epigastrium. At Dr. Benson's suggestion I had his head brought over the side of the bed and a stream of water directed from a height of some feet, and the adoption of this measure was productive of temporary relief, but he soon became worse than ever. An enema of 40 minims of tincture of opium and 20 minims of tincture of belladonna in a little mucilage of starch was administered, but it had only temporary effect, for he became so violent that he frightened two male attendants to such a degree that they ran out of the ward and would not return without the resident Purser's student. During the night it was found necessary to restrain him by putting on the strait-waistcoat until some more experienced person could be obtained to watch him.

On the 29th I found him pale, tremulous, sweating, with a cold clammy skin, and great exhaustion marked on his face. I ordered the strait-waistcoat to be removed and found the pulse in the radial so rapid and indistinct that it could not be counted, it was 116 in the femoral. I gave him one pint of porter which he drank eagerly, and this had the effect of rendering the radial pulse more distinct, and reducing the femoral pulse to 108. I ordered him to be dressed and walked about in the yard for about twenty minutes, as suggested by Dr. Benson. He was supported between two men at whom he shouted every few minutes. He imagined that he was surrounded by gold and strove violently to prevent the attendants getting any of it. When put to bed he still continued to talk in the same way. I then applied the ice-bag from the 4th cervical down to the upper lumbar spines. In a very short time after its application he fell asleep and slept so soundly that it was left on for more than two hours, when he awoke, took some beef-tea, and then fell asleep once more. In the evening I found him *free from the slightest trace of sweating, the surface was of a uniformly good temperature, the pulse had lost all its feebleness, and had become again slow, full, and regular, the face had acquired its natural colour and expression, and the tremors had greatly diminished; he had slept well all through the day.*

From this period his recovery was complete, his appetite soon returned, and he was given a liberal diet, without any stimulant. He slept for the greater part of three days, during which the ice-bag was applied thrice daily; he always found it strengthen him, and he said it made him feel as fresh as ever. It was discontinued on the 3rd March, owing to its giving rise to such depression of the circulation, as to produce an intermission in the pulse. He was allowed to walk out in the open air for short periods each day, and although he staggered about a little on the first day, he soon recovered his muscular power.

On the 10th of March he was dismissed cured, and he has since been seen by Dr. Benson and myself, and has had no relapse.

And first, as to the use of capsicum in delirium tremens, I can state from my experience of its effects in three cases, that it is decidedly beneficial, and that there are many cases in which it will effect a cure without the use of any other remedy, still there are cases, of which the present is an example, where it will fail.

This remedy was introduced to the notice of the profession in Dublin by Dr. Lyons, and he has published some cases in which its use was most successful. These observations bear out the statement of Kinnear, of the Melville Royal Naval Hospital, who had extensive experience of the action of this drug.

I have administered it in doses of twenty to thirty grains, in half an ounce of honey, directing the patient to swallow it without chewing.

I have never found it produce vomiting or any tendency to epigastric tenderness, although I gave it every six or eight hours; on the contrary, I have found the tongue clean, the appetite improve, the tremors and delirium to vanish, and in some instances even sleep to follow from its administration.

As to its *modus operandi*, it furnishes an example of the want of accordance between the physiological action of a drug and its therapeutical effects which is most instructive. All experiments hitherto made on the action of capsicum, have resulted in representing its action as that of a local and general stimulant, but in no degree a narcotic. Yet, that its action in many cases of delirium tremens is primarily stimulant, and finally antispasmodic, and even sedative, I think can scarcely be doubted. Of course it may be urged that the action of the drug is to so effect the brain and nervous system as, by its physiologically stimulant action, to restore them to a condition compatible with sleep, but this is only saying, in other words, that its *therapeutic* action is narcotic.

I am happy to be able to quote so well-known an authority as Mr. Macnamara, on the action of capsicum in delirium tremens, and I trust he will give the society the benefit of his experience. I understand that in one case which came under his notice it worked a cure, when almost everything else had failed.

In this case it had a temporary good effect, sleep was induced the first day it was given, but the two doses which were subsequently administered, seemed rather to excite than to benefit. It is a remarkable fact that the craving for grog exhibited by my patient was quite dispelled by the capsicum, and if this be found a general effect, it will prove an additional argument for its use.

In the next place, the tartar emétic and opium entirely failed in my judgment, and rather seemed to aggravate than to improve the condition of my patient, and I think this combination has been found to act better in those cases where stimulants have been administered in conjunction with it.

Finally, I was led by reflection on the state of my patient to adopt the use of the spinal ice-bag, and it is well to bear in mind that at the time of its application, the man was in a much worse condition than on admission into hospital, its effects cannot, therefore, be set down as due to any natural tendency to cure.

As the subject may give rise to discussion, I think it may not be amiss to give a detailed account of Dr. Chapman's views in a series of categorical propositions:—

1st. The nervous power in the spinal cord and sympathetic ganglia is in direct proportion to the amount of blood contained in those centres.

2nd. That all secreting cells derive their nerve influence,

and consequently their functional power, from a branch of a spinal nerve, which he calls the positive motor nerve, but their functional activity may also be affected in a less degree by increasing or decreasing their supply of blood, as may be done through a branch of sympathetic—the negative-motor nerve.

3rd. All blood-vessels are supplied by branches of the sympathetic, which supply the so-called muscular fibres of the arteries.

4th. Hyperæmia of the cord is said to produce cramps, spasms, and convulsions of the voluntary muscles.

5th. Hyperæmia of the cord increases the activity of the glandular system through the so-called *positive motor* nerve.

6th. Hyperæmia of the sympathetic ganglia induces a maximum amount of nervous effluence, which will give rise to excessive contraction of the minute capillaries, and thus produce peripheral anæmia and a fall in temperature.

7th. That this hyperæmic state of the spinal cord can be induced by the application of heat along the spine. The effects are : to increase the activity of the glandular system ; to lessen the general circulation ; and in some cases to bring on spasm of the muscles.

8th. Anæmia of the cord checks secretion and diminishes spasm.

9th. Anæmia of the sympathetic ganglia gives rise to a dilated state of the capillaries, and a rise in temperature.

10th. Anæmia of the spinal cord and sympathetic ganglia is induced by cold applied along the spine.

Much of all this is purely theoretical, and Dr. Chapman has not furnished us with any direct experimental proof of his views, except in as far as he makes use of the experiments of Claude Bernard on the function of the sympathetic, and on the nervous supply of the salivary glands, and I confess that up to the commencement of this winter I was a decided sceptic as to the effects of ice or hot-water to the spine. Having, however, witnessed the good effects of the ice-bag in some cases of amenorrhœa under the care of my colleague, Dr. John H. Benson, I was induced to use it in this case for the following reasons :—

From Dahlström's experiments on dogs we know that alcohol gives rise to muscular spasms, and to distension of the capillaries of the nervous centres. This hyperæmic state is, therefore, likely to be the cause of the tremors, spasms, jactitation, &c., as well as the excessive sweating of delirium tremens, assuming Chapman's views to be sound.

The coldness of the surface, and its coincident paleness are, on the same hypothesis, probably due to a hyperæmic state of the sympathetic ganglia.

In my case, the tremors, the sweating, the coldness, and paleness of the surface of the body were well-marked at the time of the application of the ice-bag.

I think that it is a remarkable fact that in a short time after the application of the ice-bag in this case, the following phenomena were observed :—

1st. The induction of sleep.

2nd. The diminution, and finally the disappearance of the tremors.

3rd. The regulation of vascular action.

4th. The cessation of sweating.

5th. The production of a rise in temperature all over the body with a return of the natural colour to the face.

I am quite alive to the fact that the same result may not be attainable in every case, and that further investigation is needed as to the effects, both in this and other cases of the application of ice to the spine, nor do I believe that we need necessarily adopt Dr. Chapman's explanations because we use this therapeutic agent.

I think we should alike avoid extravagant laudation, and blind and unreasoning condemnation when speaking of this as well as every other therapeutic agent, and while I am satisfied that its merits are not all that some would have us think, I feel confident that there may be many cases in which the application of heat and cold along the spine will be productive of benefit, and I am thoroughly persuaded that they are by no means impotent agents. As doubt has been thrown upon the possibility of the application of the ice-bag giving rise to an increase in the temperature of the body, I have made some exact observation with the thermometer which I shall lay before you, but I must also remind you that it is perfectly possible that even a fall in temperature might be the result of the use of the ice-bag ; for if, from any cause, the spinal and sympathetic centres be anæmic, a further degree of anæmia would be induced by the remedy, and I have observed a fall in temperature in one case, where the autopsy exhibited white softening due to disease of the arteries and consequent deficiency in the supply of blood. The amount of diminution of temperature, as observed by one of Casella's instruments in the rectum, was three-fifths of a degree.

In a man suffering from chronic bronchitis the temperature, as taken in the axilla, was four-fifths of a degree higher after the ice-bag had been applied for one hour and forty minutes.

In this case also there was a considerable diminution in the amount of expectoration, and in the severity of the cough during the application of the ice, and it was remarked to me by the patient that he had only coughed twice during the three hours he was under treatment.

I would not, however, advocate the use of ice in chronic bronchitis, if there was much congestion of the bronchial tubes, as it is calculated to induce congestion.

I have used the ice-bag in a case of hemiplegia in which the fingers were strongly flexed, and the wrist bent in the arm, there were also tremors in the muscles of the sound side. In this case, the rigidity was removed and the patient recovered the use of her fingers sufficiently to enable her to hold a needle and sew. She had been under various forms of treatment previously without much benefit, and I was led to adopt the ice from some improvement which I found to follow from the use of Belladonna.

The following table represents the results of three observations made with one of Casella's maximum thermometers. The instrument in each case was placed in the axilla for ten minutes prior to the application of the ice, and again for ten minutes prior to its removal. The period of application of the ice was in each case one hour.

	Before ice.	After ice.	
1st observation	99·4	99·8	Rise of 2-5ths 1°.
2nd observation	98·6	99·2	Rise of 3-5ths 1°.
3rd observation	97·6	97·8	Rise of 1-5th 1°.

These observations were most carefully made by Mr. Richard Croly, one of the Purser's students resident at the hospital.

At a subsequent date, Mr. Finlay, the senior Purser's student, made another careful observation for me with the object of contrasting the effects on the sound and on the diseased side, and the result was extremely interesting.

The temperature of the sound side was 98·4 both before and at the termination of the observation. While the temperature of the paralysed side rose from 97·°8 to 98·°2, thus indicating a rise of two-fifths of a degree.

I have thus wandered from my case, in order to establish the fact that the application of the ice-bag in some persons at least, and under certain conditions of the system, may produce some of those effects which Dr. Chapman's theory attributes to it ; it will require a much larger number of experiments than this to establish his views, but as far as I have gone, they tend to confirm some of his statements.

I think the thanks of the profession are due to Dr. J. H. Benson, for directing attention to Dr. Chapman's views and affording us an opportunity of confirming or refuting them, and I wish to contribute my observations to this Society in the hope that some may be induced to give the ice-bag a trial when they meet with a case of delirium tremens.

I think that the most suitable cases for its use would be those in which there is profuse sweating, with a pale exhausted expression of the face, much tremor, and continued wakefulness.

ON INSURANCE CERTIFICATES.

By Sir D. J. CORRIGAN, Bart., M.D.,
PHYSICIAN TO THE QUEEN IN IRELAND.

(A Paper read before the Medical Society of the College of Physicians of Ireland, April 13, 1868.)

THE relations which exist between insurance companies and our profession may be classed under three heads. The first comprises those duties which are discharged by members of the profession who are medical referees to insurance companies.

The medical referee, as counsel and adviser for the company which depends on him to protect it from loss by bringing all his professional skill and knowledge to the examination of the life proposed for insurance, to reject the unsound, to pass the sound.

On this, the first head, I have little observation to make. The duties of the referee are clear. He is bound to use all his professional skill for those who have engaged his services. They have a right to expect that his examination shall be searching, and those proposing themselves for life insurance assent to the examination and submit to it with a full knowledge of its object and its consequences. This is a straightforward matter of business between the insuring and the insured, and it is not necessary to say more about it.

I now come to the second head or division, comprising the relations which insurance offices desire to maintain between them and members of the profession in reference to lives insured without the knowledge of those whose lives are proposed to be insured, of which I cannot speak in any other terms than of condemnation.

The cases I class under this head are those in which A, desiring to insure the life of B, goes privately to an insurance company, expresses his desire to effect an insurance on the life of B, without the knowledge of B, or he proposes to B to effect the insurance, and B declines to be a party to it, to subject himself to examination.

Under such circumstances the course pursued is this:—The insurance company finds out the name of the medical attendant of B, and addresses a private note to him requesting him to give the company all the information in his possession, all he knows of B, all the knowledge he has been able to acquire of B's state of health, of any disease B may have suffered from, and of his habits of life; in fact, to betray the confidence B has placed in him, and, keeping the matter secret from B, to give all this information to a third party, the insurance company. The following is a copy of the communication addressed by an insurance company to the medical adviser of a case such as above. I, of course, omit the name of the insurance company and of the person whose life it was proposed to insure without his knowledge:—

"[Private and Confidential.]

"London, 7th January, 1867, S.W.

"SIR,—Having occasion to effect an assurance on the life of Mr. , Dublin, who has at times, I believe, been under your professional care, I have to ask that you will favour me with all the information you can touching his general health and constitution, and his present prospects of longevity, without, however, troubling him in any way. On receiving your opinion as to his fitness for assurance, I shall have much pleasure in sending you the usual fee of one guinea.—I am, sir, your obedient servant,

"————————."

Insurance companies would not venture to make such communications if there were not members of the profession who would (thoughtlessly, it is hoped,) reply to such inquiries; but I trust it is only necessary to draw attention to the matter to make every member of the profession, however humble, resolve to respect his own honour and the trust reposed in him by no longer answering such communications. I think every member of the profession will agree with me in unqualified condemnation of permitting this relation between insurance companies and the profession to continue, and in omitting no opportunity of giving such public utterance to their opinion that insurance companies will not henceforth ever presume to address to members of the profession such communications.

Suppose the intending purchaser of a horse were to write privately to a veterinary surgeon in these terms, and I shall follow as closely as possible the wording of the insurance letter just read—

"[Private and Confidential.]

"SIR,—Having occasion to purchase the horse of A. B., and hearing that the horse has been shod in your establishment, and has at times, I believe, been under your professional care, I have to ask that you will favour me with all the information you can touching his general health and constitution, without, however, troubling his owner in any way, and, on receiving your opinion as to his fitness for purchase, I shall have much pleasure in sending you the usual fee of one guinea.—Yours, &c."

What would be the opinion pronounced upon the veterinary surgeon who would enter into such private correspondence and give information to one of two parties, without the knowledge of the party who placed trust in him? And if such a course would not be defensible in regard to the purchase of a horse, it surely would be less defensible in regard to the speculation on a life, and on the life of a fellow-man, who has placed trust in the honour, and has placed the secrets of his life and of his diseases in the keeping of his medical adviser, that that medical adviser should reveal to others the information he had thus acquired. I do not think it is possible to defend the medical adviser who would be guilty of such conduct. It might, perhaps, be thought that if the life of the person proposed to be insured were fit in every respect for insurance there might be no objection in stating it. I cannot take this view. I think it is wrong in principle for the medical attendant of any one to enter into private correspondence with a third party on the health or life of any one who has been under his care. And on the ground of expediency it would be equally wrong, for, were such a principle adopted, insurance companies would soon come to know that when an answer was not returned it would mean that the prospects of longevity were little, and thus the insurance directors would, indirectly by silence, get the information required. I have heard it also put forward as an excuse for what I cannot consider other than a betrayal of confidence, that B, the life to be insured, is obstinate—that A has been wronged by him in pecuniary matters, and that A is justified in desiring to insure B's life without his knowledge, and, in order to effect this object, communicates to the insurance directors the name of B's medical adviser, that they may obtain privately such information as will enable them, with a prospect of profit, to speculate on the life. The end cannot, however, justify the means. And even if A were quite right in seeking to insure the life of B, and the insurance company were quite justified in seeking for all the information they require, all that would not justify the medical adviser in violating the confidence reposed in him. Moreover, were such conduct justifiable on the part of the medical adviser on the ground that B, the life to be insured, had been acting wrongly towards A, it would be impossible for the medical adviser to discover if the allegation were true, to defend his conduct on this ground, for he could not know what party was in the wrong unless he heard the statements on both sides, and these he cannot hear, as his communication is to be kept "private" from one of the party, to say nothing of the fact that it might, and often does, puzzle a Lord Chancellor, with all the facts before him in a case, to know which of two sides is right or wrong, or, it may be, which is the more in the wrong. I hope very many will now agree with me in reference to this second head of the relations between insurance companies and members of the medical profession, that it ought to be no longer tolerated.

The third head includes the class of cases in which an insurance company with the full consent of the person proposing to have his life insured, sends a series of questions to the medical attendant of the insurers, requiring to be furnished with all particulars as to past or present ailments, state of health, hereditary predispositions, habits of living, in fact, requiring information on every particular, marking the communication "private and confidential," and promising to preserve the secrets of it inviolate.

The following, copied from such an insurance inquiry, is a fair sample of the queries usually forwarded to the medical adviser, and requested to be answered:—

MEDICAL REFERENCE.

Question 1.—Are you the usual attendant of Mr. , and how long have you been so?

Question 2.—How frequently have you been consulted by him, for what description of complaints, and at what periods?

Question 3.—When did you last see him, and what was his state of health at that time?

Question 4.—Do you believe him to be now in perfect health?

Question 5.—What is your opinion of his constitution and general state of health?

Question 6.—Are his habits of life temperate as to eating and drinking, and have they always been so?

Question 7.—Is he active or sedentary?

Question 8.—Has he ever experienced any injury from accident, and of what nature?

Question 9.—Is he subject or predisposed to insanity, pulmonary disease, or any other constitutional or hereditary disorder having a tendency to shorten life, or is he addicted to any habit having that tendency?

Question 10.—Do you consider him likely to live as long as any other healthy person of his present age, being years?

Question 11.—Is there any other circumstance or information respecting his past or present health, constitution, or habits of life within your knowledge or belief, with which the directors ought to be made acquainted?

I feel that at first sight the view that I take of the course which the medical adviser should take in such cases may be a surprise to some, and may not obtain the assent of others. The view that I take of the course which the medical adviser should take in reference to the relations existing between himself and his patient and the Insurance company under this third head is, that he should no more reply to such a communication than he should to the class of inquiries comprised under the second head. It is true it appears at first sight there is nothing morally wrong in principle on the part of the medical adviser in his revealing to an Insurance company what he knows of the past and present state of health, of the proposed insurer, when he does so with the permission of the insurer. But is the consent of the insurer given with a full knowledge of all circumstances—with a knowledge of all the medical adviser has learned in professional confidence from him as to his constitution of mind and body, of his predispositions, of his hereditary tendencies, of his habits and of his morals? So far, however, is this from being the case that in a number of instances the medical adviser has a knowledge of matters that he never mentioned to others or even in his professional interviews with his client, matters often that it would be cruel to repeat, and from any allusion to which much evils might arise. Take the ninth question in the list of queries I have given. "Is he subject or predisposed to insanity, pulmonary disease, or any other constitutional or hereditary disorder, having a tendency to shorten life, or is he addicted to any habit having that tendency?" The answer to that query in many instances, must be either evasion, untruth, or revelations that should for ever be concealed in the medical adviser's own breast. Take the first member of the sentence, "Is he predisposed to insanity?" Cases occur to us in which the seeds of insanity, the first deviations from soundness of mind begin to show themselves, and which we are able to extinguish with attention to the general health and with the aid of the patient's own reason. Surely these things that we withhold for his own good even from the patient himself we never could be justified in communicating to others. Yet we must either be guilty of evasion or untruth if we withhold what we know. I have known the fond mother conceal from her own child that she was dying of cancer, and lay it as an obligation on her medical adviser when on her deathbed that he should never reveal the nature of her disease in order that her child should not have the fear of hereditary taint before her.

The medical adviser would not be justified in revealing the nature of her illness, and he would not be an honest man, if in order to avoid that he answered untruly or had recourse to evasion. Assuredly, in such instances as I have adduced, the insurer would not authorise his medical adviser to answer the insurance queries if he were aware of all the medical adviser knew. His consent then, that the medical adviser is at liberty to reply to the inquiry from the insurance company is given in ignorance, and the medical adviser is, therefore, in my opinion, not justified in acting on it.

Query 2.—Is there any other circumstance or information respecting his past or present health, constitution, or habits of life within your knowledge or belief with which the directors ought to be acquainted.

Can any medical adviser answer that query fully and truly without, in most cases, committing a breach of confidence? I think he cannot. I might adduce numerous other instances, but I know it is unnecessary, as nearly all my friends around me can, I am sure, call up many such from their own stores of memory. The question now naturally comes, how ought the physician, as medical adviser, to act in regard to those cases which I have classed under the third head of relations between insurance companies and the profession, viz., those cases in which, with the sanction of the insurer himself, the insurance company requires a confidential or secret statement from the medical adviser. I think there is but one course to be followed by the medical adviser in order to preserve his own integrity, and the inviolability which he owes to his patient, and that is, to refuse in all instances to reply to such queries. Very early in my professional life I felt the greatest repugnance to answer insurance queries. I felt that I was often placed in this predicament, that to answer in a full and explicit manner would be prejudicial to my patient would be a breach of confidence, and on the other hand, that not to do so, would be evasion or untruth on my part, and at length, after long reflection, and many years ago, I formed the resolve which I have never broken, to decline giving any reply to Insurance office queries as to the health, constitution, or diseases of any one who had ever been under my care. It required a little firmness in the first few instances to carry out my determination from the pleading of the patients, and the reiterated request of Insurance companies conveyed through the patients themselves. At length an incident occurred that fixed my determination. I received a communication from an Insurance company, threatening that they would not insure a certain life unless I gave them the information required, that this would entail on the applicant's family the loss of the life assurance, and that they would view me as culpable and responsible for the results. This was too much to be borne, so I wrote to my client to express my belief that there was competition among Insurance offices and recommended him to go to another. The original Insurance office on this intimation took up his life assurance without any certificate, and I have had no trouble since.

Let the insurance office take the constitution of a man whose life they are about to insure in like manner as they would take the constitution of a horse they would desire to purchase. Let the insurer be examined by their own referee. It is their business to have a referee on whose perception or knowledge they can rely, but I hope the profession will no longer tolerate a system under which they may apply to the medical adviser of the insurer for information acquired in confidence in the course of professional intercourse. To sum up, I would submit to you these conclusions—1st. That, in reference to the first head, the medical referee of the insurance company is bound to make the closest scrutiny of every case submitted to him for examination, and to exert all his professional observation and knowledge for the protection of the company for whom he is acting; to see that the life is a fit one for insurance. 2nd. That as regards the second head, viz., when an insurance company asks for information as to the health, constitution, habits, or probability of life of any person from his medical adviser, concealing it from the life proposed to be insured, the medical adviser should not give it. 3rd. That even where the person applying for insurance authorises his medical adviser to communicate to an insurance company all that he knows of his (the insurer's) constitution, predispositions and diseases, the medical adviser should equally refuse it, inasmuch, as the consent of the insurer is given in ignorance of what may be revealed, and the information required to be revealed may be of such a nature as should not be communicated to any one, even in some instances to the insurer himself. I do not expect at once assent to my views. I may be wrong in some of them; but believing that they are worth consideration as a branch of the ethics of my profession, I have ventured to bring them before this meeting.

At the conclusion of the paper there was loud applause. A lengthened discussion followed.

Hospital Reports.

METROPOLITAN FREE HOSPITAL.

CASES BEARING ON SOME OF THE POINTS TOUCHED UPON IN DR. R. MACDONNELL'S LECTURES ON SYPHILIS.

By CHARLES R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.

Case 1.—Incubation of primary sore—Feb. 20, 1868.—H. B., 37, a clerk, had intercourse with a prostitute on December 10, 1867. In a few days after this, gonorrhœa appeared, with scalding, &c., and still continues.

January 6, 1868.—A hard knot and chancre appeared on prepuce; and, some days afterwards, multiple glands in groin. Incubation about a month in this case.

Case 2.—The wife of this patient came before with discolouration, of "café au lait" colour, at sides of the mouth, and hoarseness and spots of psoriasis on arms, on February 10, having been some weeks ill. Did not remember having had any primary affection. This is frequently the case

in women, and they constantly say that they have not suffered from any ulceration.

Case 3.—J. B., aged 27, employed in the Custom-House, 14th January, 1868. Pustular syphilide; enlarged inguinal glands. Connection with prostitute once in November, about the beginning of the month. Hard sore on penis about Christmas, 1867; eruption in January, 1868. Incubation 30 days.

Case 4.—T. Meyers, aged 30, seen June 4th, 1867. Patient had intercourse with a prostitute at Christmas, 1866, while his wife was near her confinement, and *two months* afterwards observed a hard sore on the penis. At present, June, 1867, has excavated ulcer of the tonsils, and scaly eruption.

In another case, seen about the same time, the incubation appeared to have been as long as three months.

Case 5.—John C., 50, shopkeeper, had once intercourse with a prostitute after his wife's death in July, 1866; *four weeks* after this he noticed a small sore on the penis, rather hard, and in August, or the beginning of September, a skin eruption appeared. At present, February 19, 1867, he has alopecia, sore throat, roseola, and a papular eruption on the abdomen, with headache and great weakness.

January, 1868.—The patient is now perfectly well, having been treated by means of small doses of chlorate of potash, as a placebo, in order to allow the eruption to gradually evolve the poison.

It will be noticed that the time of incubation in the above cases of the primary lesion is about four weeks on an average. It has been remarked by Dr. McDonnell in his last lecture (Medical Press and Circular, February 19th, 1868), that syphilis is an intoxication, like variola, and may in many cases get quite out of the system, like the other intoxications. He says, "When I see a patient with a hard chancre, accompanied by hard glands in the groin, followed by the usual syphilitic sore throat, pains in the bones, affections in the cervical lymphatic glands, several successive crops of syphilitic eruption on the skin; and when I see this patient getting well and married, his wife in good health, in good health himself, and the father of healthy children; when I know that from first to last he has not taken one grain of mercury; that he has been treated on the simplest principles of hygiene, how can I refuse to believe that there has been a poison which has been eliminated, and that health has been as perfectly re-established as after recovery from small-pox or typhus." The following cases will illustrate these admirable remarks:—

Case 5.—Charlotte D., age 16, seen at the Farringdon Dispensary August 2nd, 1863, with roseola, alopecia, and enlargement of the posterior cervical glands. Was treated by doses of chlorate of potash—thus, pot. chlor., gr. v., acidi. hydrochlorici, diluti m. v., aquæ menth, ℥j., t.d., for some months, until October of the same year when the roseola had disappeared, and she looked well. She was pregnant at the time.

Case 6.—Thomas P., afterwards husband of Charlotte D., age 20, came at Dr. D.'s request soon after the patient No. 5 was first seen. Posterior cervical glands enlarged, also gonorrhœa and a scaly eruption. Treated in the same way by means of a placebo, with chlorate of potash; he lost all his symptoms in two months. These patients married soon after this, and had a child born at full time, which lived seven weeks, and died of convulsions. On November 5th, 1865, Charlotte brought her second child to Dr. D., aged five months, without any symptoms of syphilis, and the same child has been seen by him recently, February, 1868, now being two and a-half years old and in good health. Both parents are at present free from all trace of syphilitic disease.

Case 6.—Charles C., a gentleman, in 1851 had syphilis, which was treated simply, and gradually vanished. Married twice, and by the second wife had three healthy children. No signs of syphilis in 1866.

Case 7.—Emma P., 24, with ulcers on soft palate, and roseola. Seen at the Farringdon Dispensary, Feb. 10th, 1864. Treated by chlorate of potash and gargles till April, 1864, when all symptoms being gone she left. Seen repeatedly since; but with no signs of syphilis observable. Seen last January, 1868, for toothache. No vestige of the syphilitic affection remaining.

Case 8.—Catherine C., age 24, April 25th, 1864, with stains of "café au lait" colour on face and breast, and spots of psoriasis on thighs. Was treated for this affection for four and a-half months at the Farringdon Dispensary by means of the following mixture:—Pot. chlor., gr. v., acidi hydrochlorici diluti. m. v., aq. menth. ℥j., t.d. The eruption, though more obstinate than in the last two cases, disappeared; the patient married, and was seen afterwards in 1866, in good health, and free from all appearance of syphilis.

In some cases, in women, the disease seems to consist almost entirely in a few mucous tubercles, and to affect the health but slightly.

Case 9.—Eliza M., 19, was treated from 19th May to 10th June, 1864, for slight sore throat and mucous tubercles of the vulva, which were touched with nitric acid and soon disappeared. The patient was seen frequently afterwards, and no return of the disease was remarked.

Case 10 was equally slight. Catherine H., age 20, 7th Nov., 1864; mucous tubercles of vulva and between toes. Touched with nitric acid. Observed for many months; no other symptoms made their appearance.

Case 10.—George W., age 18, iritis, roseola, and mucous tubercles on scrotum. Atropia drop (gr. ij. ad. ℥i.) dropped into the eye twice a day. The iritis soon disappeared, and the eruption and mucous tubercles, he having been under treatment from 27th March to 16th May, 1865. No further symptoms seen in 1867.

Case 11.—William T., 34, large mass of induration on prepuce. Roseola, mucous tubercles. Treated from 27th March to 14th May, 1865, by means of chlorate of potash mixture, and nitric acid to the tubercles. Seen in 1866 in perfect health.

Case 12.—Mary H., 26. Hoarseness, mucous tubercles on thighs and vulva. Treated by external applications from 27th March to 10th June, 1866; seen again in 1867, in perfect health.

Case 12A.—Eliza M., 27, slight roseola on arms, and sore throat; treated from 12th April to 18th June, 1866; very slight case. No other symptoms. Seen in 1867 without any symptom.

Case 13.—Kitty C., aged 23, indurated sore in umbilicus, hoarseness, alopecia, roseola. Treated from October 8 to November 20, 1866, with chlorate of potash mixture. She was pregnant, and in June, 1867, brought a child, which was suffering from snuffles and dry eruption on buttocks. The child recovered after taking a solution of chlorate of potash for a month. Mother well.

Such are a few illustrations of the remarks made by Dr. McDonnell.

Dr. C. Drysdale is now so convinced of the non-necessity of mercurial interference in cases of syphilitic eruption that he is certain that the practice will very soon be abandoned by all but routine practitioners. The only specific treatment he is in the habit of making use of is the iodide of potassium in cases of tertiary ulcerations of the lower extremities, fauces, or nostrils, &c. He then uses the drug in doses of from xx. to xxx. grains three times a-day in water, and usually with the most happy results. Tertiary symptoms of any severity rarely supervene after careful hygienic treatment of the eruptive stages of syphilis—perhaps not more than once in 20 cases, and are infinitely more intractable and severe when mercury has lowered the vitality, in Dr. Drysdale's opinion.

It is to be hoped that Dr. McDonnell's example may ere long be followed by many practitioners in London and elsewhere, who still adhere obstinately to the conviction that syphilis absolutely requires mercury, a belief which the above cases disproves.

CITY OF DUBLIN HOSPITAL.

CASE OF EXTENSIVE SUICIDAL WOUND OF THE THROAT.

Under the care of Mr. CROLY.

E. L., aged 45 years, who had been in a melancholy state of mind for some time, attempted self-destruction by cutting his throat with a razor; he was found by his friends lying in bed, bleeding profusely from a large wound on the throat; he was conveyed at once to the City of Dublin Hospital. Mr. Croly visited the patient immediately, and found him in an exhausted condition. His countenance was pallid and depressed; his voice was whispering; pulse feeble, and extremities cold; a fearful gash was observed on the front of the neck, through which the air escaped with a hissing sound. The wound gaped widely, and extended from about two inches above the origin of the left sterno-cleido mastoid muscle, in a curved direction upwards across the trachea, and terminated at the internal border of the right sterno-mastoid muscle, at a point corresponding to its centre; the wound was deep and traversed the thyroid body from below, and at the left side upwards and to the right, cutting its isthmus, and severing the two first rings of the trachea, the cricoid cartilage and the crico-thyroid membrane. Syncope supervening arrested the hæmorrhage temporarily. The patient was placed in bed, with warm applications to his feet, and took some wine; when reaction was established the bleeding recurred: three branches of the thyroid arteries were ligatured, and smaller vessels treated by torsion. The edges of the wound were retracted with tenaculums, in order to facilitate the ligaturing of the vessels; and the surface was frequently sponged to prevent the blood entering the windpipe. Venous blood flowed freely from the middle thyroid plexus, and threatened asphyxia; this hæmorrhage was arrested in the following manner: small pieces of lint, with strings attached, were passed down by a director on the front of the trachea through the bottom of the wound, due precaution having been taken to avoid pressure on the air-tube; the ends of the strings were fastened to the neck with strips of adhesive plaster. The patient at first offered some resistance, but subsequently submitted quietly to treatment. The weather having been cold, he was carried from the large accident ward ("the Martin") into the small "Purser ward" adjoining; a good fire was kept up, and a screen placed around his bed. The resident pupils (Mr. Browne and Mr. Finlay), who watched the case with the most praiseworthy care, kept the wound in the trachea clear of the viscid mucus, which collected in large quantities. Open vessels containing boiling water were placed in the ward to moisten the atmosphere, and a thermometer was kept at the head of the bed to mark the temperature. A flannel vest was put on the patient to protect the surface from cold; and besides the nurse, a male attendant was left in constant charge, to prevent him interfering with the wound, or otherwise injuring himself. The patient was turned on his side to favour the discharge of mucus; a piece of gauze, moistened with water, was placed over the wound, and the chin kept towards the sternum by means of a night-cap and a bandage. Beef-tea and milk were ordered, which the patient took freely, and ice was given to allay thirst.

Powders composed of calomel, opium, James' powder, and ipecacuanha, were directed to be taken at short intervals, to anticipate either laryngeal or bronchial inflammation. The plugs of lint were removed in a couple of days, and the wound was sponged with "Condy's fluid," and dressed with carbolic acid. The edges of the integument were approximated with strips of adhesive plaster, an aperture of sufficient size having been left in the centre, corresponding to the opening in the trachea, to allow the free discharge of mucus. The ligatures came away within a week. The wound healed by granulation, and the opening in the windpipe gradually contracted, and finally closed completely. The voice, which was at first whispering, became natural. The patient was taken home by his friends, and was subsequently removed to an asylum by Mr. Croly's advice, as he remained in the same gloomy state of mind, requiring close watching and special treatment.

Mr. Croly made some practical remarks to the pupils on this important case in the lecture theatre, as he could not do so, for obvious reasons, in the patient's hearing. He alluded to the exhausted condition of the man on admission into Hospital, the result of loss of blood and mental depression, and laid considerable stress on the necessity of securing, with promptitude, all bleeding vessels, and drew special attention to the manner in which the venous hæmorrhage was controlled. He next dwelt upon the mode of dealing with the wound, namely, by leaving it open until all oozing had ceased, in order to prevent the blood passing into the windpipe, or by infiltrating insidiously the tissues of the neck, thereby endangering life by suffocation. Mr. Croly also impressed upon the pupils the importance of attending to the temperature of the room in cases of wounds of the windpipe, whether suicidal or made by the surgeon, and alluded to the successful manner in which inflammation of the larynx, œdema of the glottis, and bronchial inflammation (the latter an almost invariable consequence of such injuries) were prevented in this case by such treatment. In conclusion, Mr. Croly demonstrated the mode of fixing the chin towards the sternum, by putting a night-cap on the patient, and fastening the strings to a bandage rolled around the chest, and explained the necessity of leaving an intelligent pupil in charge of such a case, to clear away the viscid mucus, as it accumulated in the wound, and also an attendant to prevent the patient displacing the appliances, or further attempting self-injury.

Should the patient refuse nourishment, or deglutition be prevented owing to injury of the œsophagus, the food must be introduced by a stomach tube passed through the mouth, or administered in the form of nutritive injections.

Literature.

OWEN'S CONSPECTUS.

THIS is a very unpretending book, but one that is likely to prove useful not only to students, but to every one engaged in medical or pharmaceutical work.

The best description we can give of it is the very full title-page, which accordingly we cite at length:—"OWEN'S CONSPECTUS; OR, STUDENT'S REMEMBRANCER: *showing in a tabular form, the Latin name (with its correct termination) of each article as in the* BRITISH PHARMACOPŒIA, 1867, *its English name, together with its synonyms, with a list of preparations into which it enters, and its proportion thereto; to which are added the* DOSE, OPERATION, AND USE; SPECIFIC GRAVITY AND CHEMICAL COMPOSITION." Articles now admitted to the Pharmacopœia, as well as those in which any change has taken place, either in name or composition, are clearly distinguished. Blank ruled pages have been interleaved, which render the work easily convertible either into a student's note-book, or druggist's private receipt-book.

Such is a description of Owen's Conspectus, published (by Messrs. Longmans) at the modest price of 2s. 6d. The author first compiled it as a cheap and simple book, for the first year's student in pharmacy. We are not at all surprised that he should have discovered from its sale that it will also suit many other persons. We have looked through it, with a view of testing its statements, in different places, and have in each case found them correct. We intend to let it lie upon our table to be handy for reference, and to serve as a small commonplace book respecting materia medica and pharmacy, for which its blank pages make it suitable.

VACCINATION.[1]

The offer of a prize for an essay on this subject by the Ladies' Sanitary Association, seems to have directed fresh attention to it, for we have just now a shoal of pamphlets of

1 Vaccination Impartially Reviewed. By Ferdinand E. Jencken, M.D. London: J. Churchill & Sons. 1868.

varying interest and merit, and about some of which we may be expected to say a few words.

Dr. Jencken professes to impartially review vaccination in a shilling pamphlet of 28 pages. He opens with a statement that "philosophers have ever been guilty of two grave errors," and having disposed of these he offers us the somewhat startling proposition that "there can be little doubt that we are possessed of two distinct organisms, accurately corresponding to each other in their minutest details—the one invisible, being immediately contiguous to the organic or vital power; and the other visible, subservient to the requirements of our earthly life." Dr. Jencken tells us further that "the former is permanent, and does not quit the spirit even when it has left its present tenement." He assigns it an "intermediate relation between the soul and the outward tangible organism." What it has to do with vaccination is not very clear, and so we shall pass on to the author's more practical views. He holds that there are minor reasons why vaccination sometimes is less efficient than others. Delicacy of constitution, hereditary taint, change of climate, variations in the virluence of the epidemic of small-pox, or in the power of the vaccine virus, all combine to modify results. Some individuals are also peculiarly sensitive to certain influences. Moreover, Dr. Jencken thinks "a sudden shock to the system, or an insurmountable dread of contagion, will often undo the salutary effect of vaccination, inducing an immediate attack of small-pox." This doctrine is not one that will find many defenders, and the mere appeal to "personal observation" will fail to satisfy most, that the occurrences were more than coincidences.

As to the dangers of the practice, it is admitted by the author that syphilis, and perhaps other poisons, may be conveyed with the vaccine virus, and that therefore the greatest care should be exercised in selecting lymph from healthy vesicles, and encouraging, as much as possible, the propagation of the cow-pock, by direct vaccination from child to child. He would also resort at times to a supply obtained from the cow.

With all the drawbacks he thus freely admits, Dr. Jencken recognizes the inestimable blessing bestowed upon mankind in the discovery of Jenner, and urges vaccination and *re*-vaccination, as safe preventives of small-pox, with its train of hideous and painful symptoms, to say nothing of its numerous fatal cases.

The next essay we shall mention is by Mr. Garlick,[1] for 20 years the Medical Officer and public vaccinator of the Halifax Union, and who promises, on the first page, that he "will endeavour to write what it behoves every parent thoroughly to understand." We may freely admit that Mr. Garlick has fulfilled his promise, and that, too, in a way which has afforded us amusement. He has attempted to give his essay a dramatic turn, for it takes the form of conversation between a mother and daughter. The young lady is not only very sensible, but highly sensitive, and much as we sympathize with her indignation at the infamous treatment of Poor-law doctors, we cannot deny that it is rather overdrawn. Few readers will admit the probability of a heroine becoming so excited by the tale of the parish doctor's grievances as to repudiate her name of Grace, ask to be called Alecto, Megæra, or Tissiphone, call for whisky to make a lotion to cool her fevered brow, and sink unconscious on the floor. Nor after such a scene is it natural that Grace, on her recovery, should recur to the subject with the exclamation—*Fiat justitia, ruat cælum.* Yet, as we have said the pamphlet has amused us, and it contains so much information, written with so much earnestness, that we can wish it a wide circulation. It is a pamphlet that may safely be placed in the hands of the public, and is more likely to be read than the majority of such productions. We shall be glad if Mr. Garlick finds the reward of his pains in the promotion of useful knowledge; still more glad if he tends to awaken a heartless public to a sense of its obligations to an ill-requited profession.

A third pamphlet on the same subject is from the pen of Dr. Godfrey,[2] of Enfield, and is a practical and forcible effort to show that "*bad* vaccination is better than *good* small-pox," while *good* vaccination is a perfect preventive. In spite of such solecisms as the above, the essay may be read with pleasure, and its wide distribution may exercise influence for good. Dr. Godfrey denies that vaccine may be a vehicle for syphilis or other diseases, and gives cases to which he has been called where such a charge was made, and which he proved to be unfounded. He holds that vaccine either conquers any other virus or dies, that it will not in any case mix with them or convey them, that as in presence of small-pox, one virus or other acts perfectly, and the other is destroyed. "The disinfectant destroys the poison when it comes in contact with it." The experiments of Cullerier, Taupin, Heim, Sigmund, and others, are cited in support of this view. In replying to objections he can be pungent too, as when alluding to those who are so fastidious that the idea of transferring morbid material from an animal to the human system is repugnant to them, he observes they are "silent when the diseased livers of animals have been deposited in their stomachs in the form of *Pâté de foie gras.*" Dr Godfrey believes, further, that vaccination is not impaired by lapse of time, but that its preservative power lasts through life. Still, like a practical man, he thinks re-vaccination proper, since, though if once thoroughly done, it will not take again, the second operation will be useful when from any cause the first was imperfect. We have other pamphlets to notice, but most postpone them to a future occasion.

1 An Essay on Vaccination. By Frederick Smith Garlick, M.R.C.S., &c. London: Simpkin and Co. Halifax: Nicholson and Sons. 1868.

2 Vaccination; its True Use and Power. By Benjamin Godfrey, M.D. Enfield: J. H. Myers. 1868.

CLIMATE OF WEST AFRICA.[1]

A work on the climate of the Western African colonies, commonly reputed the most deadly to be found anywhere in the British possessions, cannot fail to possess much interest; especially when we find that the author is himself a native of Sierra Leone, and commenced his meteorological inquiries there some fifteen years ago, so that he is now able to place before us the results of prolonged experience of the climate of West Africa from the Bight of Benin to Senegal.

The author proposes to divide the West African tropical year into three divisions in reference to its medical climatology.

1. The diarrhœal or dysenteric division.
2. The febrigenous or malarial division.
3. The congenital or pulmonic division.

The first division comprises the months of February, March, April, and parts of May, October, and November.

The second takes in May, June, end of August and September.

The third comprehends November, December, January, viz., the "Harmattan" months, a part of June, July and August. The cold dry Harmattan wind stops the manifestation of malarious fever on the system, but occasionally produces congestive fever by driving the blood from the surface to the interior of organs.

During the heavy rains it appears that the malarious beds are so inundated with water that they are for the time incapable of generating anything like malarial fever.

After a chapter replete with figures denoting a long and laborious course of meteorological observations during the years 1865-66, we are introduced to the subject of the effects of tropical heat on the system. The severe heat checks all attempt at prolonged intellectual work and interferes with the nutrition of the body; in males the virile powers are quickly exhausted, and in females the period of fecundity is very limited.

Dr. Horton insists strongly, p. 104, on the danger of cutting down trees, for malaria has an attraction for lofty umbrageous trees, so that a wind blowing over a swamp, and afterwards over a belt of lofty trees, will come pure and untainted to the town, while the cutting down of such a protective belt of trees has been proved to be a sure way of introducing malarious fever among a community.

Some readers may be surprised at finding Sierra Leone spoken of as one of the most healthy spots on the Western Coast of Africa (p. 82), but so it is; the one unhealthy spot appearing to be the city of Freetown, the capital and *entrepot* of trade.

The only breeze that comes pure and uncontaminated into the low lying city of Freetown is the N.W. wind which comes direct from the Atlantic, and yet, notwithstanding this, and other serious drawbacks to the salubrity of the city, the merchants persist in residing there although they might easily enjoy a pure atmosphere if they chose to betake themselves to villas on the adjoining hills.

The red soil of Freetown contains much iron and but little organic matter, because the effect of the iron is to decompose and destroy the organic matters existing in the soil. It is probably this process of decomposition of organic matter

1 Physical and Medical Climate and Meteorology of the West Coast of Africa, with valuable hints to Europeans for the preservation of health in the tropics. By James Africanus Horton, M.D., Edin.; Staff Assistant Surgeon of H.M. forces in West Africa. London: John Churchill and Sons.

induced by the iron of a ferruginous soil that has caused Sir Ranald Martin, and others, to condemn ferruginous soils as decidedly unhealthy, since the decomposing process of necessity evolves noxious miasms and vapours.

The practical summaries that are given by Dr. Horton of the rules for diet, clothing, and exercise, appear to us to be most valuable, They come from the experience of most competent men, and Dr. Horton has doubtless had opportunities of proving their trustworthiness in actual practice. As one example we may refer the reader to the precautions to be taken against an invasion of cholera as given at page 296 et seq.

All through the work we find evidence that Dr. Horton has read much, not only on climate, but also on other kindred matters; thus, we find him at page 231 giving his readers a short resumé of Dr Bence Jones' interesting researches on the presence of animal quinoidine in the body, and referring to Dr Symond's theory as to the true cause of what is called nervous headache.

These little matters, briefly touched upon, in our opinion tend to make the work all the more interesting and readable, even if they do add somewhat to the bulk of the volume, and there can be but little doubt that in Dr Horton's work we have not only a book pleasant to read, but also one containing much new and highly interesting information on the climatology of Western Africa.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 22, 1868.

GREENWICH HOSPITAL.

Another official report on Greenwich Hospital and Schools reminds us that some subjects seem to be inexhaustible. Yet we are free to confess that the labours of this new committee seem as unsatisfactory as those which have preceded them. It cannot be forgotten that Greenwich Hospital is no mere charity, but one of our most important national institutions, with revenues derived from the Crown and the Parliament. It is, therefore, of public importance that its management should be such as the nation can approve. Before 1763, there were scarcely any out-pensioners, but from that year these absorbed a large sum. In 1814, Parliament devoted a large sum to enable this service to be more completely carried out. In 1829 this was reversed, and Parliament undertook the provision of all out-door pensioners, leaving the hospital the duty of providing for in-pensioners, and an income for that purpose of £140,000.

Since 1848 the inmates have fallen off until the late change providing for those who preferred to live with their friends, and which has nearly emptied the buildings. At present the country has only 370 in-door pensioners, while there are no less than 15,000 out-door. Is it not time to revert to the ancient plan, and devote the revenue of the [hos]pital to out-door pensioners? If not, it is clear, beyond [doub]t, that the money is at the service of Parliament to devote as it deems best for the good of the country. It is incredible, but too true, that Greenwich is one of the costliest hospitals, although it is impossible that the medical department can occasion the outlay. Each bed in this national institution costs £94 a-year. At Netley the cost is only £76; at the Herbert Hospital it is only £61; at Woolwich £57; while the civil hospitals of the metropolis cost less still. Thus, the London Hospital, which may be taken as a medium, only costs £55 per bed, per annum.

Whence the waste? It is not the medical department but the civil which devours the nation's money, for no purpose but providing places for useless officials. The expense of the clerical element alone is such, that Parliament is not likely to suffer it to continue much longer.

If it is found the rule that men prefer to have their pensions and live with their friends, what shall we do with the buildings? Clearly, a large portion of them would be invaluable for a hospital proper or infirmary for the Navy and the mercantile marine.

The claim of the mercantile service on the hospital has been explained frequently enough in reference to the Seamen's Hospital Society, and it certainly does seem preposterous to spend money in new buildings while these are empty. The idea of a Naval Netley seems likely enough to be realized.

A correspondent has noticed an apparent inconsistency in our views in this matter. We, therefore, take this opportunity of explaining that, when we advocated the creation of a large naval medical school, we expressly proposed to sink in that the *Dreadnought*. That good service has been done by the supporters of the *Dreadnought* is on all hands admitted—that its claims are well founded few deny—that its staff deserve recognition is unquestionable. If we are to have a large hospital at all the fine pile of buildings on the river is ample, not only for the requirements of the navy, but for the commercial marine, and by union much better results must follow. In the organization of a school, naval medical officers would not be jealous of the services of the existing staff of the *Dreadnought* being retained. The civil element, in its turn, could not disagree with the naval, since its term would be temporary, probably lasting only for the lives of the present incumbents, after which the appointments would naturally fall into the hands of naval officers.

To attempt to create a great naval medical school without utilizing the staff of the *Dreadnought*, and without absorbing that institution into Greenwich, would be a wasteful blunder which could not fail to draw upon the department the eventual condemnation of the Parliament and the country.

REPRESENTATION OF THE SCOTCH UNIVERSITIES IN PARLIAMENT.

Ever since the proposal to give members to the Scottish Universities was made, we have consistently upheld the rights of these bodies, and urged their claims to even larger concessions than those that have been made. Our readers will remember that at the first we said that one member for each of the four universities would not be too much, and, looking at the representation enjoyed by Oxford, Cambridge, and Dublin, might fairly be asked for. The idea was in some quarters thought extravagant; in others it was supported in the same way that a general claim for more members for Scotland was put forward, but thought

as unlikely to be obtained as the additional fifteen asked for by some reformers for the Northern Kingdom. Still, in no influential quarter whatever was there any opposition to the proposal to grant representatives to the Universities of Scotland.

Further, our view that one member for each of the Universities would not be too much has been widely approved.

A statement issued by the Senatus Academicus of Edinburgh University shows how just is the proposal we put forward before the Scotch Reform Bill was framed. This statement compares the numbers educated at our Universities, as well as the number of Graduates. According to this authority, Oxford, with its immense revenues, only educates about 1700 students, while Edinburgh, with its much smaller resources, educates between 1500 and 1600.

Now, let us turn for a moment to the numbers of the members of these constituencies. Oxford has 4190 graduated members. Cambridge is a larger constituency, numbering 5354. Trinity College, Dublin, is much smaller—only 1877. Let it be remembered that each of the above constituencies returns two members to Parliament, and then we may see the claim of the proposed Scottish University constituencies by the following figures:—

St. Andrews and Edinburgh, which are conjointly to return one member, will number 5358—more than any other University constituency. Surely two members would only be just for these, if politicians could but suggest whence they are to be obtained. The joint constituency of Glasgow and Aberdeen Universities will number 2720 members, being upwards of 800 more than the number of the Dublin University constituency, which returns two members. We have no desire to see any of these institutions deprived of either of their members. Our wish is rather to see more University constituencies. We should have been glad to see two members instead of one conferred on the University of London, and we think four for the four Scotch Universities would have been more liberal and more just, as is abundantly proved by the figures we have quoted above.

Still, as so full a measure of justice is scarcely to be hoped for in the present condition of the question, we can have no hesitation in supporting the claims of Scotland to the instalment offered. The peculiar characteristics of the Scottish Universities are well-known, and that their members would be worthy electors has never been denied. We support, then, the conclusion of the body we have mentioned as *extremely moderate*. The senate submit that "Four Scottish Universities, which educate between 3000 and 4000 students annually, and send between 400 and 500 graduates into the professions of the kingdom, may justly and with much moderation claim two representatives when they find two allowed to Trinity College, Dublin, with one-third the number of students and one-half the number of graduates, and when their pupils amount to nearly the same as the united numbers in the two Universities of Oxford and Cambridge, which now send four members to Parliament."

THE MATERNITY DEPARTMENT OF SIR PATRICK DUN'S HOSPITAL, DUBLIN.

On the 6th inst. extraordinary prominence was given to the recent opening of a Maternity Department at Sir Patrick Dun's Hospital (Dublin), by the inaugural Clinical Lecture of Dr. Sinclair, King's Professor of Midwifery, under the provisions of the amended School of Physic Act of 1867.

The present position of the Obstetric Department of our profession, as compared with its status in Sir Patrick Dun's time, and for long after, is in itself highly significant.

About a century ago—and then Sir Patrick had been long dead—the practice of the Obstetric Art was considered altogether derogatory to the Profession of Physic—so much so, indeed, that the Fellows of the King and Queen's College of Physicians and the Board of Trinity College fell out because the latter body insisted that the degree of M.B. might fairly be granted to Mr. (afterwards Sir) Fielding Ould, whose name is well-known in connection with that great institution, the Dublin Lying-in Hospital. The idea of admitting any midwifery practitioner even a Licentiate of the Irish College of Physicians, had not then been openly expressed, much less advocated; and there can be little question that had any Fellow of that College proposed as a candidate for the Fellowship any Obstetrician, however eminent, he would have been quickly sent to Coventry by his brethren.

But if Sir Patrick Dun were now to rise for a while from under St. Michan's Church he would stare with amazement. He would not only see the Obstetrician so prominent in that College which he endowed, as that some two years ago the President, Vice-President, one Censor, Treasurer, Registrar, and two Examiners were all midwifery practitioners; but he would also behold in the hospital supported with his money a lecturer holding forth on the occasion of setting up the teaching of midwifery within its walls; and he would further observe that not only was that lecturer a distinguished Fellow of his own College, but that, by legal right, he styled himself "King's Professor of Midwifery on the foundation of Sir Patrick Dun."

But, in truth, this is only one of many proofs of the advancing spirit of our day, and of the rapid demolition of ancient landmarks.

We have only to repeat what we said before about this hospital—that, seeing that it can favourably compete with any other on scientific grounds, it ought not to be allowed to *compel* any class of students to resort to it for any time, long or short.

INSURANCE CERTIFICATES.

We publish in another column an important paper, which was read before the Medical Society of the College of Physicians of Ireland, on the 13th instant, by Sir Dominic Corrigan, Bart.

The subject being one of general interest, secured an unusually large attendance of the members, who listened with deep attention to the statements of so eminent a physician as Sir Dominic Corrigan.

The President of the College occupied the chair, and at the conclusion of the paper a discussion took place, of which we can only say, that it fairly established what we have often before heard stated—that the profession in Dublin might favourably compare with any other in the matter of eloquence and readiness in debate.

As we understand that this subject will be resumed in connection with a discussion on another paper, we need not here enter into it minutely, especially as Sir Dominic states his own views with an amount of clearness and precision which require no explanation from us. We must,

however, say, that we share in an opinion which seemed to be generally expressed in the discussion which followed the reading of his paper:—that his third position is untenable, or that at least it requires considerable modification. "The third head (he says) includes the class of cases in which an insurance company, *with the full consent of the person proposing to have his life insured*, sends a series of questions to the medical attendant of the insurers, requiring to be furnished with all particulars as to past or present ailments, state of health, hereditary predispositions, habits of living, in fact requiring information on every particular, marking the communication 'private and confidential,' and promising to preserve the secrets of it inviolate."

Every one conversant with the mode of examining lives for assurance knows very well that in numerous cases, perhaps in the majority, there is nothing whatever objectionable in the physician giving information, if requested to do so by his patient.

That cases, such as those sketched by Sir DOMINIC, will occasionally arise, wherein matters have been expressly concealed from the patient himself, for his own good, by the medical adviser, there can be no doubt. Yet we think these require exceptional treatment, and should not form the rule for the majority, concerning which there is no need for any secrecy, particularly when the good of the patient demands that there should not be any, and when he, himself, desires that there should not.

We fear that the ideal of perfection in medical officers of insurance companies started by Sir DOMINIC is not a practical one, so long as medicine remains an inexact science.

Notes on Current Topics.

The Public Health.

THE same favourable state of the mortuary records continues. In London the deaths in the last week were 238 less than the average of that week—the 15th of the year. The actual number of deaths registered was 1274. The annual rate of mortality for the week, for the large towns, was as follows:—London, 21 per 1000; Edinburgh, 28; Dublin, 22; Bristol, 31; Birmingham, 21; Liverpool, 25; Manchester, 26; Salford, 27; Sheffield, 22; Leeds, 21; Hull, 22; Newcastle-upon-Tyne, 23; Glasgow, 25. The deaths from zymotic diseases in London were 250, the corrected average for the week being 328. Of these 18 were due to small-pox; 49 to measles; 16 to scarlet fever; 8 to diphtheria; 50 to whooping-cough; 31 to fever; 10 to diarrhœa. Of diseases of the chest, we notice 168 deaths from phthisis, 143 from bronchitis, 79 from pneumonia, and 53 from diseases of the heart.

Health of Scotland.

THE month of March this year, in Scotland, has been remarkable for its high mean temperature, which was 44·2 deg., being 4·2 deg. above the average of the last twelve years, and higher than any year since 1859. This may in some degree account for the favourable returns which have been received. The deaths registered in the eight principal towns, viz.: Edinburgh, Glasgow, Dundee, Aberdeen, Paisley, Greenock, Leith, and Perth, during that month were 2409, which, allowing for increase of population, is 176 less than the average of the same month during the previous ten years.

"Forty-three per cent. of the deaths were of children under five years of age—the same proportion as in the entire year 1867. In Dundee, however, the ratio last month amounted to 53 per cent. The zymotic class of diseases proved fatal to 535 persons, constituting 22 per cent. of the mortality of the eight towns. This rate was exceeded in Dundee from the prevalence and fatality of measles, and in Greenock from that of whooping-cough. 110 deaths, or 4·5 per cent. of the total mortality, were caused by fevers. The highest mortality from that cause occurred at Dundee, where 6·1 per cent. of the deaths resulted from fever. Whooping-cough was the most fatal epidemic, having caused 155 deaths, or 6·4 per cent. of the mortality in the eight towns. The deaths from croup numbered 30; from consumption 341; from inflammatory affections of the respiratory organs 392. Diphtheria caused 22 deaths, diarrhœa 36, 66 deaths were ascribed to violent causes, 5 were suicides, 3 from intemperance, 11 from drowning, 31 from fractures. Four of the men and five of the women who died had reached the age of 90 and upwards; one woman was 99.

St. George's Hospital Museum.

WE have to chronicle the completion of the catalogue to the Museum of St. George's Hospital consisting of nearly 900 pages, and the publication of which may be considered an event in the history of pathology. The editors are Dr. J. W. Ogle and Mr. T. Holmes, and they have been assisted by Dr. Dickinson who succeeded them as curator. The work has been long on hand, having been interrupted by the death of Mr. Gray, and other unavoidable circumstances. The care with which it has at length been completed, will be evidenced by the index which occupies nearly forty pages in double columns. It appears to us that this catalogue is arranged in a very simple manner, and will, therefore, afford great assistance to any one desirous of studying Pathology. The whole of the valuable museum of St. George's Hospital is described so as to render it easy to study usefully that collection. Thus, each series of preparations is placed in a separate compartment, and the indexed catalogue of that series is also placed there. The student who wishes to investigate any simple subject has thus only to consult one series; while for more complex subjects it will only be necessary to look over two series. The editors deserve the best thanks of pathological students for the labour they have bestowed on this important volume.

Royal Polytechnic Institution.

OF the many scientific amusements that have rendered this institution so famous, none will be found more worthy of notice than the optical illusions that form part of the Easter programme. Founded on Faraday's experiments with cogged wheels they go far beyond them, inasmuch as they render it easy to demonstrate the laws by which they are governed to large audiences in a popular manner.

Aided by Mr. Pichler, Professor Pepper projects the large figures illustrating his lecture on a disc, and thus makes them visible to the whole audience. The entertainment is unique, and in the words of a late president of the College of Physicians, "Philosophy in sport made science in earnest."

Mr. Pepper's remarkable exposure of spirit-rapping and other spiritual manifestations is not likely to be forgotten, any more than his wonderful *ghost*; or we might dwell upon the newer and more perfect exemplifications of the principles upon which these entertainments were based now exhibited in the "manifestations *á la Home*," where everything is

seen floating in the air, or with the beautiful optical illustration of Anderson's exquisite tale of the "Angel and the flowers."

In a subsequent lecture there is also to be seen a capital *skeleton illusion* devised by Mr. Pepper and Mr. Tobin, which we commend to all young people as sure to amuse them, and to anatomists and physicists as worth looking at on a leisure day.

Medical Education.

THE oration of Mr. Teevan, published *in extenso* in our last issue, supports with considerable force, the conclusions we had expressed in our previous number respecting the curriculum, and ably seconds our appeal for a little more liberty for the student. We have no doubt that this as well as the many other topics touched upon by the orator, have been read with considerable interest; it is, therefore, unnecessary for us to further dwell upon them. We publish with pleasure, this week, a letter from Mr. Walter Rivington, called forth, apparently, by our criticisms on his able speech at the Medical Teachers' Association. The letter supplements the speech, and we are therefore glad to afford him space to accurately define his important suggestions. Whatever may be the result, we feel sure that free discussion of the whole subject of medical education is most desirable. We have spent, ourselves, much time and labour upon it, and we rejoice that at length there is a fair prospect of its exciting that degree of interest which is so pre-eminently due to a consideration of how the next generation shall be provided with men to carry on the noble work of scientific medicine.

A Medical Students' Athletic Club.

WE have much pleasure in stating that the United Hospitals Athletic Club started last year is in a satisfactory condition. It is found that the meeting of the students of all the hospitals once a-year for a day or two's sport exerts an influence not to be despised, and promotes that union which the size of London and the distance of its hospitals from each other so much discourage. Last year Sir Wm. Fergusson was president; this year Sir Thomas Watson has undertaken this part, and the vice-president's list includes a physician and surgeon from each of the hospitals. The meeting is fixed for the 5th and 6th of next June at Beaufort House, and we heartily wish it may prove a brilliant one. Any past or present student may become a member for the modest subscription of 2s. 6d., and we may hint that subscriptions from their seniors will be usefully employed by the students.

Laughing-Gas.

AT the Medical Society of London on the 13th inst., the properties of this gas were discussed, and some important statements made in reference to its revival as an anæsthetic. Dr. Richardson, the President of the Society, who, as is well-known, has devoted great attention to the subject of anæsthesia, related the history of the gas, and detailed his own experiments with it. These clearly showed that laughing-gas is not, properly speaking, an anæsthetic at all; but rather an asphyxiating agent. It has caused fatal consequences before, and Dr. Richardson felt it his duty to warn the members against the indiscriminate use of so dangerous a compound, which would be likely to be followed in a certain percentage of cases by lamentable accidents.

The sense of the Society seemed decidedly to support Dr. Richardson's views, and several members expressed their condemnation of the hasty manner in which the so-called new anæsthetic had been forced upon public notice.

The Ordeal of Battle.

WE commend to the attention of the Medical Council, who complain of insufficient powers to equalize the value of diplomas, the short cut pointed out in the case of Bryant *v.* Popham, at the London Bail Court last week. If an apothecary who falsely calls himself a surgeon can bring his qualification up to the level of his competitor by blackening the eye of an incautious disputant, there is hope that success in the reconciliation of contending factions may be achieved by a little less law and a little more vigour on the part of our medical legislators.

If the Medical Council really means to check diploma-selling, let it morally blacken the eye of the guilty licensing corporation, and we are quite sure it will be justified by the public as the pugilistic apothecary has been.

A Surgeon's Exploits.

WE are quite aware that we have many eminently skilled men in the profession whose services we are always ready to acknowledge; but we were hardly prepared to hear of the performance of such rapid and hazardous operations as we are here called upon to record. Mr. Boustead, Surgeon to the Abyssinian field-force, went out accompanied by two natives "to try and bag a lion," but as none were to be found, they proceeded to hunt for elephants. Five of these were soon discovered, two with large tusks, one with medium, and two with none. Mr. B. stalked the largest, and when within ten yards the elephant charged, but receiving a bullet in the forehead fell stone dead. The next largest he shot in the shoulder with a right and left barrel, and despatched him with a third bullet from his "little Mortimer," smashing the limb to atoms. A third old bull came on terrifying the natives, who, in their agitation, threw down Mr. B. with the butt of a spare rifle. He instantly sprang to his feet, and at five yards distant, calmly sent an "Enfield sized bullet" through the elephant's brain, which fell dead at two paces from him, and rolled over the precipice. Immediately a fourth elephant approached them, blowing and trumpeting hideously. At twenty-five paces, Mr. B. sent a heavy ball high in his head, and as he still advanced, another rather low which checked him; but again on he came, and the two cowardly natives ran up the rocks. Mr. B. made signs for them to throw him down a loaded rifle, he says—

"They chucked it down, and I caught it in the air as it fell, and gave the elephant a No. 12 through the shoulder, which disabled him. He tried to get up to the path where I was standing, but tumbled back, and in his rage commenced smashing to pieces everything in his way, making fearful noises. It was a rare sight to witness his wonderful strength; he bore down trees of considerable thickness by sheer strength and weight of body, and smashed their branches into thousands of atoms. Every bit of jungle was knocked to smithereens and trampled to pieces all around him, and his vain endeavours to get at us, and his terrible rage at being foiled, were really most exciting to witness. He nearly succeeded in getting up the incline to where I was, when I gave him the last bullet I had. His legs gave way, he staggered back on his hocks, and then rolled over heavily with a terrible groan. I can assure you I was thankful when it was all over and that I was out of the row so well."

Of the fifth monster, we hear nothing. He appears to have been too wise to face the fearful rifles, and so very quietly disappeared. If the army when it comes to the encounter makes as quick despatch with Theodore and his native forces as the intrepid surgeon did with the native brutes, we may soon expect to hear that the captives are released, and the expedition is on its way home.

Royal College of Surgeons of England.

In reply to the query contained in our remarks last week, on the coming election, Mr. Erasmus Wilson has addressed to us a letter, containing an explanation of his views respecting an association of the Fellows. We commend the letter, which is printed in our correspondence columns this week, to the attention of the constituency to which Mr. Wilson appeals, and we have no doubt that the frank manner in which he recognizes the right to question candidates, will gain him many supporters. It is clear that the day has passed when a man can expect to be elected to so important a post without a free declaration of his principles and intentions. We feel strongly on this point, and we urge all voters to refuse support to any candidate who does not pledge himself to a definite course. There are questions to be mooted which involve the welfare of the College, and, indeed, of the whole profession. These we shall examine on another occasion, and ask explicit declarations from the candidates. Meantime our columns are open to those who are ready to imitate Mr. Wilson's laudable and straightforward example.

F.R.S.

The Royal Society can hardly be said to have tarnished its prestige when it is in the position of announcing the names of fifty-three candidates for fifteen vacancies amongst its members.

The fact is sufficient proof that the distinction of an F.R.S. is worth having. We understand that twenty-three of the competing candidates are medical men, and we shall look with interest for the list of names that we may see how far scientific ardour outstrips monetary considerations in the contest.

Of the fifty-three claimants, probably one-half are of inevitable candidates who look for everything and get nothing, and who, by asking for that to which everybody but themselves know that they have no title, establish a *prima facie* case against themselves, and consign themselves eventually to the position of unavoidable bores. This class being eliminated, we have the candidates who, with some pretension to favourable consideration, seek for the position as a step to practice and an income. They cultivate science for what it sells for, and work it in the most remunerative direction for the same reason as they publish their compilations, because in the long run it "pays." These persons, having secured the alphabetical decoration have received all they wish for, and settle down into silent mediocrity as far as the pursuit of science goes. The deduction of this class from the list will leave a few—a very few—really earnest students, who work because they want to learn, and publish because they want to teach, and who seek for the F.R.S. as much for the facility of giving and receiving the co-operation of their brethren as for the honour and glory of the distinction.

These are the men, albeit they are usually the opposite of the "pushing" candidates, whom the Society should have, and it is to be earnestly hoped that all other claimants will be remorselessly weeded out, and space left in the scientific soil for the fruition of better material.

The Brown Bequest.

The Parliamentary contest last year between the Universities of London and Dublin, respecting the administration of the Brown bequest, will be in the recollection of our readers.

The testator had bequeathed more than £30,000 to the University of London for the purpose of establishing an infirmary for the diseases of the lower animals, with the proviso that, if after a certain period his bequest should not be carried out, the money was to pass to Trinity College, Dublin, for the endowment of a Professorship of Oriental languages. The University of London attempted, by passing a private bill through Parliament, to divert the money to other purposes, but were defeated by the University of Dublin.

They have now reverted to the original intention of the testator, and propose to apply the money to the foundation of a Professorship of Comparative Pathology and Medicine. Thus the endowment will be applied to the investigation of the highly important branch of science to which the cattle plague gave lately so forcible an impetus, and though it can hardly be supposed that the testator meditated this result in his demise, it appears to us that the application of the bequest to such a purpose is sufficiently near the original intention to allow of the scheme being carried out.

Poor-law Assistants in England.

The Boards of Guardians throughout England have received from the Poor-law Board an important communication in reference to the employment of unqualified assistants by their Medical Officers. The letter embodies an unequivocal condemnation of that practice, and calls upon the guardians to co-operate "in discouraging altogether the employment of unqualified assistants."

The letter continues as follows:—"The Board have no desire, however, to deprive the Medical Officers of the aid of legally-qualified assistants, and they therefore desire to point out that the Medical Officer may nominate his assistant, when duly qualified, to act as his substitute under the circumstances mentioned in article 200."

We anticipate that this decision, if it be rigidly enforced, will exercise very important influence on the demand for legal professional qualifications, and may prove to be the most radical reform of the present year in this direction. The action of the Poor-law Board is entirely justified in the public interest, inasmuch as a very large proportion of the Poor-law medical duty has been hitherto discharged by persons for whose competency no security whatever has existed. It is to be hoped that the enforcement of the rule will be followed by an increase of the salaries of English Poor-law Officers, to enable them to meet the increased expense.

It is, however, a remarkable consummation that the employment of substitutes for the discharge of ordinary duty is now officially approved and provided for in England; while in Ireland the dispensary doctor is not legally permitted to be absent from his district without special permission even for an hour, or to delegate his functions to another except in case of serious illness, and even then, unless he be alive to his own interests, he may be compelled to pay his substitute from his own

pocket. In point of fact, not only is the Irish Poor-law Medical Officer supposed to discharge the entire of the duties *propriis manibus*, but he is not even permitted the luxury of being sick without, in many cases, paying handsomely for the privilege.

A Royal Honour to Irish Surgery.

THE anticipation which we ventured to express, that the occasion of the Royal visit to Ireland may be availed of to do honour to the Surgical profession in Ireland, has, since the publication of our observations, gained strength in the minds and wishes of the profession in Ireland. The natural hope that the Surgeon to the Queen in Ireland might on such an occasion be made the recipient of a distinction intended for the Irish surgeons generally, has ripened into confident expectation that the Royal College of Surgeons in Ireland may, in being honoured by the presence of the Heir-Apparent, receive through the person of its President, the decoration which officially and individually he so well deserves.

We are convinced that the difference which has been made in respect of professional honour between England and Scotland and the sister island, and between medicine and surgery in Ireland itself, has been purely fortuitous, and it will be regretted by the entire profession if an apparent and unintentional slight be permitted to become a real cause for envy in the impression that Irish Surgery is not considered worthy of a single mark of honour to stand beside the five baronetcies conferred elsewhere. In the judgment of the profession, the Surgeon to her Majesty in Ireland, and President of the Royal College of Surgeons, is already Sir Robert Adams, and we venture to trust that our indication of his merits may not appear as an unnecessary dictation to those who have made apparent their earnest desire to act in every respect equally towards the country of which Mr. Adams is the most eminent surgical representative.

Presentation to Dr. Edward Hamilton, of Dublin.

ON the 4th inst., Mr. Hamilton, the Lecturer on Anatomy and Physiology in the School of Dr. Steevens' Hospital, Dublin, and Surgeon to the Hospital, was presented with a very handsome present of plate, and an address from his present and former pupils. The presentation, which was intended as a testimonial of respect on the occasion of Mr. Hamilton relinquishing private teaching, was handed to him in the presence of a very large assemblage of the subscribers and members of the profession. The address having been read, Dr. Grimshaw spoke in feeling terms of the regret which was experienced by the students of Dr. Steevens' Hospital in loosing Mr. Hamilton as their private teacher, and the gratitude which they experienced for the labour which he had uniformly bestowed on their professional education. The President of the College of Physicians occupied the second chair, and was addressed by Mr. Fleming, who, as consulting surgeon to the hospital, bore testimony to the worthiness of Mr. Hamilton to receive such expression of regard from the students of the hospital. Mr. Hamilton subsequently entertained his visitors on the occasion at supper.

WE inadvertently stated that Dr. Little, one of the candidates for the Chair of Hygiene at the Royal College of Surgeons in Ireland, was not a Licentiate of the College, which we were aware that he is.

The Queen's University in Ireland.

WE announced some time ago, that Dr. William Mac Cormac, Surgeon to the Belfast General Hospital, and son of Dr. Henry Mac Cormac, would be put in nomination for a seat on the Senate of the Queen's University in Ireland. On Tuesday, the 14th inst., the Convocation met at Dublin Castle, and Dr. W. Mac Cormac having been proposed by Dr. Mapother, and seconded by Mr. Ross, was duly elected. The new Senator occupies no less distinguished a position than the succession to the seat held by the Earl of Rosse, and he has been chosen by the Graduates of the University as their representative partly on account of the high position which he holds in Belfast where many of the Graduates have been educated, but principally because he contested on the part of the Queen's Colleges the power of the Senate to carry out the Supplemental Charter which, it was believed, would have greatly prejudiced the future of the provincial colleges, and because he succeeded in preventing the effort of the Senate to carry into effect the provisions of the new charter.

THE *Times* has opened its columns to a "Fellow of the College of Physicians," who is anxious to press upon public notice the danger of persons who have not recovered from scarlatina travelling in railways and other public vehicles. In reply to another correspondent, the "Fellow" further explains that the greatest danger is during the "peeling" stage before convalescence is complete.

AT the Medical Society of London, Mr. Mason lately exhibited an artificial hand, made by Mr. Pratt of Oxford-street, at the low price of three guineas, and which was so useful that, with a little practice, the patient could easily learn to write. We need scarcely say that nothing else at the price has been produced which will accomplish this.

Proceedings of Societies.

HARVEIAN SOCIETY OF LONDON.—MARCH 19TH.

IN HOW FAR IS TUBERCULAR CONSUMPTION TO BE CONSIDERED TO BE A CONTAGIOUS OR ZYMOTIC DISEASE.

A DEBATE was opened by Dr. CHARLES DRYSDALE on this question. After remarking on the extreme frequency of the disease, as evidenced by recent French statistics, which gave 160,000 as the annual number of deaths in France from consumption, Dr. Drysdale remarked on the hopelessness of the idea of curing the disease in the immense majority of cases, and in the present condition of our knowledge; and hence how important it would be if prevention were found to be more possible than it had hitherto been. It was as well to hear, whether or no we agreed with them, the arguments of those who, like M. Villemin, were sanguine as to much being done to prevent the ravages of that disease, which was certainly at present the great curse of the human race. M. Villemin, in common with Morgagni, Valsalva, Van Swieten, Morton, Hufeland, and other eminent authorities, believed in the zymotic nature of tuberculosis; and his arguments were well worth consideration. To begin with, the fact was now incontestibly proved, that grey granulations or yellow tubercle, or the sputum of persons affected with tubercular consumption, were all capable of producing tubercles in the intestines of some of the lower animals, when these were inoculated by those products. And although, of course, such experiments would never be made upon man, there was the greatest probability that such inoculations made upon human beings would lead to the evolution of tubercles in the lungs and death, and this too quite irrespective of the question, whether tubercle were precisely like the matter from variola, or not—*i.e*, a specific poison.

In the eyes of Villemin, hereditary transmission of consumption was an error of observation. That observer

only admitting hereditary debility, and accounting for the numerous deaths which so often occur in families by the members living together, and thus the healthy being contaminated by the sick. Villemin urges that, in hereditary syphilis the disease breaks out shortly after the birth of the infant; but in this, Dr. Drysdale observed, the learned author did not seem to be aware of the advantage his case might have derived from the facts observed by Mr. Hutchinson, that corneitis in the children of syphilitic parents might not appear until the age of 15, up till 30. As to the frequency with which consumptive patients referred to consumptive parents, Villemin accounts for this by observing that in large towns, such as Paris and London, among the poor operatives, from whom the statistics of hereditary are derived, the disease is excessively prevalent, so that one-third of those who die in hospital succumb to this dread disease. In the French army, where it appears that hereditary transmission is rarely assigned, since the troops are the offspring of healthy peasants, phthisis appears to be remarkably prevalent, and M. Villemin will have it, that the men infect each other in the barracks. Nothing, he says, is more heartrending than to observe in the practice of the military hospitals these robust peasants, with no hereditary transmission, and whom no excesses have injured, fall victims to the disease.

With regard to the influence of professions, nothing clear has been made out, since the chronic pneumonia caused by the inhalation of irritating substances is not to be confounded with tubercular consumption. Villemin's views as to the zymotic character of the disease are assisted by the fact that it seems to be very rare in Iceland, and in cold climates; and also at high elevations over the level of the sea. He quotes, in p. 336 of his work, Nicol, who states that at La Paz, a town of 40,000 inhabitants, in Bolivia, 3700 metres above the sea, consumption is not met with, although common on the sea-coast. The plague is unknown, also, above 600 metres, and the yellow fever and cholera prefers low lying districts. Tuberculosis is well-known to be far more prevalent in large towns than in rural districts. In the rural districts of England the mortality from the disease being 4 in 1000; and in Liverpool 6·40 in 1000 annually.

Prisons, convents and monastaries, are terribly visited by consumption, and barracks are well-known to be most dangerous in this way to the troops. No less than 9 in 1000 of the Cent Guardes in Paris, the chosen troops of France, succumb to this disease annually; and Villemin points to this as another evidence of the zymotic nature of the complaint. Troops on the march, on the contrary, are wonderfully free from consumption and, at Sebastopol, in 1854-55, among the allied armies, the complaint was almost unknown. The wandering Arabs are said to be very free from the disease, living as they do apart from all chance of contagion in tents.

It is alleged by various authors that consumption was unknown to some nations until their contact with Europeans. Livingstone asserts this of the tribes of Central Africa; and other authors say that the Indians of North America and the natives of the Pacific islands were first attacked with consumption, as well as variola and syphilis, when Europeans visited them. Apes are known to be, when confined in our menageries, perhaps even more prone to tuberculosis than man, and Villemin is so convinced of his thesis, that he accuses the breaths of the visitors to the Zoological Gardens of being the cause of this disease among the apes. Morgagni was greatly persuaded of the danger of opening the bodies of persons who had died of phthisis, and said "phthicorum cadavera fugi adolescens, fugio etiam senex;" and Laennec inoculated himself with tubercle when a student, and had unmistakable local appearances of tubercle at the spot. He died of the disease twenty years afterwards.

With regard to the unity of the disease, there are, no doubt, many forms and differences in the cases of phthisis observed, but not more than there are seen in the cases of typhoid fever or of syphilis, of glanders, or farcy. *Acute* consumption may kill in ten days; *chronic* consumption may last for twenty-five years; but usually it may be said that the disease runs its fatal course in adults in less than three years. And with regard to cases of fibroid consumption, they are probably not tubercular, and like chronic pneumonia of the grinders, not necessarily fatal. For a long time it was maintained, that glanders was not communicated from the horse to man, now it is universally admitted to be thus engendered. Glanders in the horse has much analogy with phthisis in man. In it are similar deposits in the lungs; it is fatal, engendered by crowding of horses into unhealthy stables, and hence probably zymotic disease. Glanders or farcy has also much analogy with syphilis in man, and many cases of the one have been mistaken for those of the other. But many persons assert, that glanders arises spontaneously in the horse. It may be so, but it is not found in horses which live apart and isolated; but among troop-horses and those which live in crowded and probably infected stables.

Tubercules are only, it appears, found among a limited number of zoological species. Glanders only attacks horses and men. Syphilis, scarlatina, measles, and variola only attack man. The cattle plague is peculiar to ruminants. Probably the cow, the ape, and some rodents have, alone, true tuberculosis, in addition to man. The so-called tubercles of other animals are merely parasitic lesions. The phthisis of cows, when inoculated on rabbits, is as certain to produce tubercles, as the grey granulative form in man. This result was obtained at the Veterinary College at Alfort, in France, by M. Villemin. It has often been asserted, that the inoculation of tubercular matter has nothing peculiar in it, and that *any* pathological product, almost, might, if inoculated, cause tubercles to appear. Villemin, however, asserts that he inoculated rabbits with pus from abscesses, &c., with cancer, and with the products of pneumonia, of typhoid fever, and all these with negative results. But subsequent experimenters have found that there are exceptions to this rule, and that some irritating species of matter will also excite tuberculosis in the rabbit.

No doubt appearances resembling tubercles may be obtained by injecting liquid mercury into the bronchi of animals; but the results are local, and the constitution is not infected, as in tuberculosis. Hence tuberculosis must, after this, surely be classed among the zymotic, or contagious diseases, to a certain extent, if we follow its analogies. Another point of analogy is one which obtains between phthisis and typhoid fever. Both are commonest from 20 to 35. Typhoid fever, too, is thought by many not to be contagious, and it is only in villages that the cases can be traced to contagion. Cholera is, in like manner, said not to be contagious by a great number of eminent men, *e.g.*, Greenhow. The poorer work people in Paris pass their lives in *garnis*, or furnished apartments; 40,000 men live in rooms containing eight to ten beds. This is the class in which consumption and cholera are found to rage.

In conclusion, Dr. Drysdale said that, although he was far from assenting to the views entertained by the enthusiastic discoverer of the inoculability of tuberculosis, he could not help saying, that his own experience, since his attention had been called to the subject during the last nine months, had tended to show that members of a family, especially husbands or wives, frequently became attacked post, if not propter, the death of their relations from phthisis. Would it not be erring on the safe side, he asked, to advise those, who were suffering from consumption, to sleep alone, and to have their apartments well ventilated. Is it necessary to admit persons with bronchitis and other diseases of the chest into hospitals for consumption, any more than into Lock Hospitals. He admitted and contended that consumption usually arose spontaneously, but this was no proof that it was not, in some cases, communicable, and there is no need that the imbecile prejudices which are opposed to the arrest of the spread of syphilis, should act in the case of a more dreadful disease such as phthisis. Lévry, in his treatise on Hygiene, t. ij., p. 763, says it is a certain fact that the examples of contagion adduced by authors, have principally existed between husbands and wives, and although we may invoke coincidences, it is difficult to withstand the idea of contagion, when we see robust women or men attacked soon after the death of their partners. Wives appear more frequently to be attacked than husbands, and, according to Gueneau de Mussy and others, this may arise from the contamination from the fœtus. It would also seem to be advisable for persons born with a tendency to consumption, if possible, to live in mountainous districts, and far from the fashionable resorts of the consumptive, such as the South of France or Madeira, as long at least as they remain free from the disease; when hectic and emaciation have advanced, of course, a mild climate may be a palliative and prevent suffering.

Dr. GREENHOW considered that the hereditary nature of phthisis was just as much proved as that of gout.

Dr. POLLOCK said that the inoculability of tubercles was the only feature it had in common with the zymotic diseases; there was no proof of its transmissibility by ordinary contagion.

Mr. ERASMUS WILSON looked with considerable doubt upon all the new views as to the contagiousness of different diseases.

Dr. BURDON SANDERSON said that the zymotic nature of tubercle was one of those irrepressible weeds which had continually arisen in the minds of pathologists, and which would always be reproduced from time to time. Recent experiments had led to the discovery that a very numerous variety of other substances besides tubercle, in fact, almost any pulverulent substance in a sufficiently divided state would lead, when inoculated, to the production of tubercular deposits in all the organs. But it did not necessarily follow that this disease was identical with phthisis in man. We must go back to clinical experience for an explanation of the causes and origin of phthisis.

After observations by Mr. Weeden Cooke, Mr. Curgenven, and Dr. Wynn Williams, Dr. Drysdale briefly replied.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE first session of 1868 was held at the Rooms of the Medical Society of London, on the 8th inst. Nearly sixty members were present. The President, Dr. Richardson, was in the chair.

Ninety-nine new members, seven associates, and sixteen honorary members were elected.

The HONORARY SECRETARY read a report on the proceedings which had been taken in regard to the Parliamentary and the University franchise.

Dr. GREENHALGH brought before the notice of the Association the recent action of the General Council of the University of St. Andrews. It appears that this body, consisting of 368 members, held their half-yearly meeting lately, when twenty-three of their number attended, and resolved to petition Parliament against the admission of the M.D.'s to the General Council. He protested very strongly against the tone of the remarks of some of the speakers, and proposed that some action should be taken in opposition to this move on the part of the General Council.

Drs. Crisp, Drysdale, O'Connor, Cleveland, Prosser James, and the President, took part in the discussion which followed, as to the best means to be adopted in regard to this matter.

Dr. CHOLMELEY proposed, "That the Honorary Secretary be directed to draw up a statement, showing the grounds on which the Doctors of Medicine claim a right to be placed on the General Council of the University, and refuting the arguments raised against their admission: And that he be also directed to forward such statement to the governing bodies of the University, with an expression of the deep regret of this Association at the determination of the General Council to oppose the claim of the Doctors of Medicine, and of the hope that this opposition will not be persevered in."

This resolution was seconded by Dr. Ross, and carried unanimously.

The PRESIDENT brought forward the subject of the registration of disease. He recounted the previous attempts at the accomplishment of this most desirable object, some of which had met with no inconsiderable, although but temporary, success. After reminding the members of the importance of the subject, and of the valuable results which would arise from a knowledge of the earliest appearance of an epidemic, or its persistency in one locality, and this measured not by its fatality, but by its existence, he briefly described his plan. He said that a very simple alteration in the forms sent in to the guardians of the poor every week by the Union Medical Officers, would provide the material needed. He proposed that these returns, having served their local purpose, should be sent weekly to the Registrar-General's office, and their classified and arranged for publication. The meteorological reports could be appended in brief, and a scheme of the Registration of Disease, such as was yet in existence in no country, could be obtained. He added that his proposals would entail no additional labour on the already hard-worked Poor-law Medical Officers.

Dr. CHOLMELEY proposed—"That the Earl of Devon, President of the Poor-law Board, be requested to receive the President and other members of the Association as a deputation on this matter."

Dr. ROYSTON seconded the resolution, and it was carried unanimously.

The very hearty thanks of the association were offered to the medical journals for the efficient support they had given to the association in its attempts to vindicate the rights of the Doctors of Medicine of St. Andrews.

It was arranged that the next session of the associatio should be held in the autumn, at Hempstead, in Essex, the place of Harvey's burial.

At the close of the meeting Dr. ROYSTON said:—Mr. President, before we separate I wish to ask you a question of some importance. I, and I believe all the graduates, have been canvassed for our votes by two competitors for the representation of the University in Parliament. I want to know whether the association has yet indicated any predilection on this point, and whether it is right for any of us to pledge himself to the support of any candidate.

The PRESIDENT replied—The council of the association has not as yet even considered the claims of rival candidates, and I should hope it will do nothing whatever on the subject until the Bill has passed, and the vote is an actual possession. To secure that end is the present work of the association, and when the position is certain it will be time to use it, not before. Then, in my opinion, it will be expedient to call a General Session, at which the merits of the several candidates can be discussed, and the most approved name submitted to the association for its unanimous support.

Correspondence.

MEDICAL TEACHING.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Some of the criticisms which have been passed on the proposals which I made at the Medical Teachers' Association, were based on the supposition that I expressed myself in favour of establishing a Central Institution for Lectures, after the Parisian model. This supposition is erroneous. Whatever the womb of time may produce when the Schools have become accustomed to united action, I should have deemed it premature to bring forward such a plan. What I advocated was that Botany, Elementary Chemistry, and Comparative Anatomy, should be removed from the list of subjects taught at the medical schools, and that the two former at least should be required as preliminary subjects. In order to anticipate any objection that might have been urged on the ground that there would be no provision for teaching these subjects, I very briefly indicated that lectures could be given on them annually, at some Central Institution in the Metropolis. In the case of Comparative Anatomy I specified the College of Surgeons, on account of the Hunterian Museum; for Botanical and Chemical instruction appliances exist, as you remark, in greater abundance elsewhere.

Attendance on these courses would not be compulsory, but voluntary, and admission would be obtained by the payment of a fee. And I have not the slightest doubt that if such courses were of a first-class character, the attendance would render them amply remunerative.

Students not residing in or near the metropolis might find private tuition, if unable to acquire the subjects for themselves. But one result which would spring from the scientific subjects being required at a preliminary examination, would be that Botany, Chemistry, and Zoology, would be more generally introduced as a means of education, and instruction in them would ere long be provided in all our larger schools. This would materially contribute to raise natural science in this country to its proper rank.

The transference of Botany, Elementary Chemistry, and Comparative Anatomy, would in no way alter the existing relations of the medical schools. Not that a change in these relations might not be advantageously effected, but that there seemed so many obstacles to progress in this direction, that I did not touch upon the subject. All that I dealt with was the first stage of the medical curriculum, which offered a fair field for the early and effectual action of the Medical Teachers' Association. In some sense I must confess myself disappointed that the report of the Council will, in all probability, not appear till next November. But I look forward with some confidence to an endorsement of my views as to Botany and Elementary Chemistry, and as to the advisability of freeing students from the necessity of attending two courses of lectures on the same subject, and as to the inutility of requiring attendance during the first eighteen months on medical and surgical practice, and lectures on Surgery and Medicine. In any case these proposals are but a first instalment of my views on the very wide and very important subject of educational reform.—I am, sir, your obedient servant,

WALTER RIVINGTON.

22, Finsbury-square, E.C., April 8, 1868.

THE ENGLISH POOR-LAW.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I should feel obliged if you will insert the enclosed communication in your journal for this week.—I am, sir, yours obediently, JOSEPH ROGERS.

"TO THE LONDON AND PROVINCIAL POOR-LAW MEDICAL OFFICERS.

"GENTLEMEN,—It is decided to call a public meeting of London and Provincial Poor-law Medical Officers towards the end of May or early in June, the day and hour hereafter to be determined, though for the convenience of country medical officers mid-day will probably be selected.

"The time is specially opportune. We are about to see the dissolution of the existing, and the election of another, Parliament on a more Liberal basis. The question of the better treatment of the sick poor both in London and the country has taken deep hold of the public mind, and it is desirable that Poor-law Medical Officers should assemble and express their opinion as to the best mode in which this question should be dealt with. This is the more requisite, as past experience conclusively shows that there is no probability whatever of any change, beneficial alike to the interests of the Poor-law Medical service and the sick poor, being ever conceded *(the negation of justice being solely dependent on your want of unanimity)*. It is, therefore, incumbent on all Poor-law Medical Officers to exert their influence in the forthcoming election, so as to secure pledges from candidates that, if returned, they will vote for such amendment of the law which, whilst securing more equitable consideration of their claims as Medical Officers, will enable them more thoroughly to perform their duty to the sick and suffering poor.

"If you have any suggestions, &c., to offer, please address them, gentlemen, to, yours obediently,

"JOSEPH ROGERS.

"33, Dean-street, Soho, W., April 13, 1868."

"12, Royal-terrace, Weymouth.

"DEAR SIR,—I have learnt through a friend, that you have it in contemplation to convene, at an early period, a public meeting of London and Provincial Poor-law Medical Officers, with the view of pressing on the Legislature the absolute necessity, in the interest of the sick poor and their medical attendants, of some very considerable modifications of existing arrangements. I am also told that you require money for the necessary expenses, I therefore enclose you a cheque for £20 from the fund belonging to the Poor-law Medical Reform Association.

"The movement has my hearty sympathy, and I regret that, although very much better, I am still unable to take any active part in Poor-law matters.

"Trusting you will have a successful meeting.—I am, dear sir, yours very sincerely, RICHARD GRIFFIN.

"Joseph Rogers, Esq., M.D."

THE ENGLISH POOR-LAW BOARD AND THEIR MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I was extremely pleased when I read your leader of yesterday on the new regulations for English Poor-law Medical Officers. It is perfectly correct, and, alas, not in the least overdrawn, when it shows to the members of the medical profession who are fortunate enough to be able to dispense with union appointments, what a sorrowing, hardworking health-destroying, and degrading life must be that of the truly conscientious parish doctor. I say degrading, though only as it is applied to the accepted fee for work done, not for the work itself—that is noble, most noble, save that of the Christian ministry—that mortal man can be engaged in. It reflects the greatest honour on those who do such work for such pay, the greatest dishonour on those who compel medical men thus to slave and toil—surely they must forget the Divine words, "The labourer is worthy of his hire." If the British public only knew how the union doctor is paid for attending the poor, what he has to do, what he has to find for his niggardly salary, and the risk he runs of offending the officials of Bumbledom when he stands by the sick pauper and insists upon him having the necessaries and comforts that he would see his private patient had, surely they would, with national voice, one and all, condemn the machinery of the Poor-law Board as useless, totally inefficient to provide for the wants of the sick poor, and say it is nothing better than a piece of humbug from beginning to end. I am personally acquainted with one of the medical inspectors alluded to by you, and if, in one's indignation at their conduct, one should apply to them the epithet, "Toady advisers," instead of medical advisers to the Poor-law Board, I hope such strong language might be over-looked. You may depend upon it, Mr. Editor, the first time I have again the honour to be in company with my learned friend I shall point out to him the very great and heartless injury he is inflicting upon union medical men by such a line of conduct, which must sooner or later rebound on his own head. As surely as the trodden underfoot and over-worked slave turns in time against his oppressor, so will the poor-law medical men of the united kingdom in their turn rise *en masse* and assert their rights to fair and just payments for their labour in the same proportion as Government remunerates its other various officers of all classes. If all medical men felt as much love and respect for the honour of their profession as a few do, or did they possess as much independence as the collier, cab-driver, &c., how many would be holding union appointments now at the present salary? That is a question for the profession to turn over in their minds and digest most thoughtfully. A labourer says, I am worth so much, and so much I will have for my day's work, a mechanic does the same. Why cannot a medical man enjoy the same privilege? Why? for this reason, for want of unity of action and of friendly feeling, and of working together, the great with the small, for the mutual benefit of each other. Or it may be, that the consulting medical man does not really know what his humbler brother stands most in need of. I beg to thank you, as the Editor of THE MEDICAL PRESS AND CIRCULAR, for the generous and independent manner with which you always advocate the honour, and uphold the interest of the medical profession in every department, whether military, naval, or civil.—I am, sir, yours faithfully and obediently, HENRY W. WILLIAMS, M.D.

168, Fulham-road, London, S.W.,
April 16, 1868.

A FELLOWS' ASSOCIATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I accept your challenge in the spirit in which it is made; I acknowledge your right to inquire—What are my views with regard to a Fellow's Association! and I will do my best to reply.

The charter of the College of Surgeons of England creates an elective body; but it is clear, that a large number of individuals, amounting to upwards of a thousand, would be unable to act as a body, unless they have the opportunity of meeting together and communicating their sentiments to each other. It would not be difficult to show that the electors of the College of Surgeons have never, latterly, acted as a body, but on every occasion as mere partizans; and in so acting, they have done injustice to their undoubted prerogative.

My proposition is, that the Fellows of the College should obtain permission of the Council to meet within the College, once or oftener in the year, to discuss questions affecting the general interest.

The first advantage which would result from these meetings would be the very important one of promoting an *union* between men who, under present circumstances, can never have the opportunity of meeting together; and, this union would be, as I hope, not one of person only, but also of heart and of mind.

As we stand at present, the Fellows are divided into sects, each sect centring around the temple of some Catholic saint, such as St. George, St. Bartholomew, St. Thomas, St. Mary, and so forth; and the tendency of this sectional division of our body is antagonistic to university union. The College of Surgeons is our University, the saints represent the schools, but the schools are members without Catholic essence unless they have the power of meeting together, and communicating their views at a common general meeting, such as that I now propose.

It may be unnecessary to appeal to the illustration of the "bundle of sticks;" but the fagot would have more weight and more power than the individual sticks, and the bundle might prove successful in the representation and redress of supposed injuries when the separate sticks would wholly fail. But to abandon metaphor, there cannot be a doubt that a representation coming from the whole body of associated Fellows would both be accepted and treated with respect by the heads of the College to whom it was addressed. It would have received the consideration of the many instead of the few; it

would be chastened by the unimpassioned thought of a large and interested body, and it would be treated with careful judgment by those for whom it was intended.

The opinions of a Fellow's Association would, in my mind, be the "vox populi" of the Profession; it would consider, it would reflect, it would suggest, and all the more temperately in proportion to its recognised status. Such an association, moreover, would be the best qualified to determine the priority and eligibility of candidates for election to the council; and it might be fairly expected that candidates who had received the *probatum* of a Fellows' meeting, would be generally supported by the Fellows at large. Indeed, it is hardly to be conceived that a candidate, impressed with the knowledge of the majority of Fellows being opposed to his claims, would still have the hardihood to tempt the chances of an election.

It would be difficult to anticipate what other questions might come before the Fellows for consideration; but, whatever they might be, an intelligent body, such as I am now contemplating, would have no difficulty in dealing with them.—I am, sir, your obedient servant, ERASMUS WILSON.

Henrietta-street, Cavendish-square,
April 16, 1868.

THE MEATH HOSPITAL.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A notice having appeared in your journal of the 15th inst., to the effect that I had submitted my name to the Board of the Meath Hospital, as a candidate for the office of Surgeon to that Institution, will you oblige me by stating that such was not the case.—I am, sir, your obedient servant,

JOLLIFFE TUFNELL,
Surgeon to the City of Dublin Hospital.

[WE stated that Mr. Tufnell's name "had been mentioned amongst the actual or probable candidates." The statement was perfectly accurate, inasmuch as Mr. Tufnell's claims were not only freely canvassed in professional circles, but he was at one time spoken of as the most probable successor to Mr. Stokes.—ED. M. P. & C.]

Medical News.

UNIVERSITY OF CAMBRIDGE.—The following account of the anatomical schools is from Professor Humphry's report to the Syndicate. These have answered well to the requirements of an increasing class of students of human anatomy during the past year. The dissecting room is well ventilated, well lighted, and commodious; and it has been fairly supplied. The superintendence of the students by Mr. Carver has been diligent and efficient. Lectures or demonstrations on practical anatomy have been given regularly in the lecture room by Mr. Carver and myself. A demonstration of minute anatomy has been given weekly by Mr. Gedge of Caius College, whose superior knowledge of that branch of anatomy I have been glad to render thus advantageous to the students. There is, besides, the more general course of lectures on anatomy and physiology, delivered by himself in the new museums, which are intended for students of natural science and students preparing for the special examination for B.A., as well as for medical students; and the opportunities thus altogether afforded for the study of human anatomy and physiology are very good. The arrangements in the museum for microscopical demonstrations have succeeded thoroughly; and, with the efficient aid of Mr. Gedge, and by the kindness of members of the University in lending microscopes, I have been enabled, on alternate Mondays, to give demonstrations of minute structure to classes of thirty or more at a time, and, so I hope, inspire an interest in this important branch of science. The current anatomical and medical periodicals, or many of them, are placed upon a table, and are accessible to the students and others who have the privilege of visiting the museum. The University Medical Society, numbering forty-five students besides the professors and teachers of the medical and natural sciences, holds its meetings in the museum weekly; and we hope that these incentives to visit the museum may operate as an inducement to more study of the preparations.

A very important acquisition has been the valuable collection of urinary calculi, presented by the Governors of Addenbrooke's Hospital. It numbers above 200 specimens removed by lithotomy or lithotrity in the hospital, and is accompanied by a catalogue giving a short history of each case with the result of the operation. To these are added the remarkable calculus of historic interest and of enormous size (weighing 33 oz.), long preserved in the library of Trinity College, and other specimens; making a collection of great practical and pathological, as well as scientific, interest. The work of arranging and displaying these properly in a suitable cabinet has occupied much of Mr. Carver's time during the summer, and is not yet finished.

The following specimens have, in addition, been added to the Museum:—

A series of eight fœtal skeletons; the skeleton of a young person, showing the epiphyses; a lower limb articulated to show dislocations; the upper and lower maxillæ at different periods of life; a head prepared to show the fifth pair of nerves; preparations of the ear; a cranium, with the bones artificially united; the skeleton of an aged rickety person; a wax model of the brain and spinal cord in situ; a skull, prepared to show the veins of the diploe. I must not omit to add that the handsome present of a valuable photographic apparatus with accessories, for taking representations of anatomical structure, has just been made by Dr. Ormerod of Brighton.

THE MUSEUM OF COMPARATIVE ANATOMY.

Many new specimens have been added to the Physiological and Osteological series in this Museum; and the foundation of a Zoological series, which was greatly needed, has been laid; many specimens have been remounted and several specimens better articulated so as to render them more serviceable for the purposes of study and demonstration. For particulars I may refer to the report of Mr. Clark, and will only add that much care has been taken in the selection of specimens, regard being had less to number than to excellence and suitableness for illustration of lectures or assistance in study. It is becoming a thoroughly good working museum; and I trust the students of Anatomy and Physiology will become more and more sensible of the facilities it affords for instruction, and of the advantages to be derived from resorting to so important a means of acquiring knowledge and stimulating thought.

HEALTH OF THE EX-EMPRESS OF MEXICO.—The *Nord* writes as follows:—"The health of the Empress Charlotte continues to improve in a manner that promises the best results for the future. But for certain fits of gloominess, which become less frequent from day to day, the princess no longer feels the cruel affection from which she has suffered. Sleep and appetite have returned, and with them the taste for study. The princess spends nearly the whole of the day in her room, and, except the royal family, receives no one."

SAD ACCIDENT.—A very painful case occurred last week, a poor woman of eighty-six years of age being admitted into Guy's Hospital for extensive burns over the surface of the body, from which she died in a few hours. The poor old woman's dress seems to have caught fire as she was seated opposite an open fire-place, and when no one else was present. She managed to run out into a yard, but there fell down in a state of exhaustion, and although the flames were soon extinguished, and she was carried to the hospital, she rapidly sunk, as might easily have been anticipated.

THE SENSORIUM COMMUNE.—In a review of Dr. Maudsley's work on the "Physiology and Pathology of Mind," which appeared in the *British Medical Journal*, the reviewer, while taking the author gently to task in regard to the sensorium commune, has complacently tumbled into a most strange blunder. So serenely unconscious, however, is he of his plight, that it would be a pity to take any notice of it, were it not that in doing so the opportunity offers itself of quoting some admirable words by Prochasha. They were published in 1784, and those who read them now will judge whether the eminent physiologist has received all the acknowledgment due to him from subsequent writers. The reviewer of Dr. Maudsley's book says:—"In the chapter on the sensory centres and sensation, the author should have been more explicit as to what he regards as the sensorium commune proper, or centre for the reception of the impressions made upon the nerves of common sensation. Though this is one of the disputed points of cerebral physiology at the present day, and one to which, by his plan, he was peculiarly bound, he evades the discussion of the question, and neither tells us whether he places it in the optic thalumus, or in the pons varolii." The

sensorium commune the centre for the nerves of sensation! This is more than strange in a critic, and might have entailed a whipping on a schoolboy. Surely a thought of the meaning of the Latin words might have warned him of his danger. The sensorium commune is the common centre of sensory impressions—the aggregate of the sensory ganglia—not the centre of common sensation. But the name has been so long used, and is so well understood by physiological writers, that the reviewer's blunder might pass comprehension, were it not evident that he learned it from Vulpian.—*Journal of Mental Science.*

PEPSINE.—Among the results of the application of science to the practice of medicine, none appear to promise more important benefits to those suffering from impaired natural functions than the introduction of Pepsine, the digestive principle of the gastric juice, which in a purified state, and mixed with some inert vegetable powder, or dissolved in wine, or made into a lozenge, forms a valuable and by no means a disagreeable medicine. It appears that the use of this important medicinal agent is greatly increasing as the knowledge of its effects becomes more fully established and widely diffused. There are few medicines that afford so ready a means as this does of testing its efficacy. A few grains of it put into a wine glass with some water forms at once an artificial stomach in which food may be digested, and in this way the relative values of different samples of pepsine may be determined. At a lecture that was delivered a short time ago at the Society of Arts, by Dr. Letheby, an experiment of this sort was made, in which large quantities of animal fibrine were digested in bottles during the lecture, with English (Morson's) and also with French Pepsine.—*Times.*

NOTICES TO CORRESPONDENTS.

DR. J. SMITH is referred to our issue for January 15.

CHLORODYNII.—You would do well to test the three articles mentioned, they may be equally good or *vice versa*. It is not our wish to advertise any particular person or article, except in the columns set apart for that purpose. There may be, and we believe there is, more than one manufacturer of genuine chlorodyne, but chemists generally dispense that originally introduced by Dr. J. Collis Browne, unless some particular maker's is prescribed. We cannot enter into the other part of the question—as to one maker being likely to allow chemists a larger profit than another, as an inducement to *push the sale* of his production, to the exclusion of other and better articles. We presume no respectable house, wholesale or retail, would be guilty of such a breach of professional confidence.

H. W.—Severe cases require probing, and the administration of caustic remedies is very needful in the present instance. We will offer you, and those of our numerous subscribers who are interested in the subject, every facility.

CONSANGUINITY.—Dr. Bernies, of Kentucky, has published some interesting and important statistics upon the result of marriage between blood relations. He states that "he has found that 10 per cent. of the deaf and dumb, 5 per cent. of the blind, and 15 per cent. of the idiots, admitted into the various charitable institutions of the United States, are the issue of marriages of first cousins." Such marriages are now prohibited in Kentucky, and several of the States; and a bill is pending before the New York legislature, prohibiting them under a heavy penalty.

ERRATUM.

LITTLE ON CONVULSIONS.—In our last issue, under this head, after Case 1, the paragraph "Sympathetic Convulsions" was misplaced. It was intended for the heading of Case 5.

THERAPEUTICAL COMMITTEE OF THE HARVEIAN SOCIETY OF LONDON.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Will you allow me to intimate to the profession, through the medium of your valuable journal, that we shall be glad to communicate with any gentlemen who would be willing to undertake the duties of Local Honorary Secretaries to this Committee for the districts in which they reside. We have already received offers from Dublin, Leeds, Birmingham, and Torquay.—We are, yours, &c.,

J. B. CURGENVEN, 11, Craven-hill Gardens.
WILLIAM HICKMAN, M.B., 1, Dorset-square.
Honorary Secretaries of the Therapeutical Committee of the Harveian Society.

April, 1868.

BOOKS, PAMPHLETS, &c., RECEIVED.

The Westminster Review.

Owen's Conspectus or Students' Remembrancer. London: Longmans and Co.

The History of Anæsthetics. Edinburgh: Edmonston and Douglas.

A Report of the Sanitary Condition of Leicester in 1867. By J. Wyatt Crane, M.D.

Report upon the Proceedings of the Guardians of the Poor of St. Pancras. By W. H. Wyatt, Esq.

Registrar-General's Report.

An Essay on Vaccination. By F. S. Garlick, M.R.C.S. London: Simpkin, Marshall and Co.

The Pharmaceutical Journal. April.

Plastic Surgery. By David Prince, M.D. Philadelphia: Lindsay and Blakiston.

Bible Animals. Part IV. Longmans and Co.

The Journal of Mental Science. No. LXV. London: Churchill and Sons.

The British Journal of Homœopathy.

The Monthly Homœopathic Review.

Have you been Vaccinated? By W. J. Collins, M.D. London: H. K. Lewis, Gower-street.

Hardwicke's Science Gossip. April.

Diseases of the Chest. By A. T. H. Waters, M.D. London: John Churchill and Sons.

The Physiology and Pathology of the Mind. 2nd. Edition. By Henry Maudsley, M.D. London: Macmillan and Co.

The New Orleans Journal of Medicine.

Thomson's Conspectus. Edited by E. L. Birkett, M.D. London: Longmans and Co.

Ninth Annual Report of Sussex County Lunatic Asylum.

Vaccination: Its true Use and Power. By B. Godfrey, M.D., F.R.A.S. Enfield: J. H. Meyers.

The Glasgow Medical Journal.

Pacific Medical and Surgical Journal.

New York Medical Journal for March.

Dr. Lankester's School Manual of Health. London: Groombridge and Sons.

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MARRIAGES.

BEAUMONT—MOORE.—On the 26th ult., at the Scotch Church, Alexandria, by the Rev. James Young, M.A., Thomas Beaumont, Esq., M.D., F.R.C.S.I., to Jane Elizabeth, daughter of James Moore, Esq., Newtownards, Ireland.

HAMERTON—PARKER.—In Dublin, on the 15th inst., at St. Anne's Church, by Rev. G. W. Torrance, A.M., Matthew Hamerton, Esq. of Orchardstown House, in the county of Tipperary, only surviving son of the late General John Millet Hamerton, C.B., Colonel of the 55th Regiment, and formerly Lieutenant-Colonel of the 44th East Essex, which regiment he gallantly commanded at Waterloo, after serving in Egypt—to Josephine Eliza, eldest daughter of Joseph Parker, Esq., M.D., and T. C. Limerick. Immediately after the ceremony the happy pair left for the continent.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 29, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S THIRD LECTURE ON FOOD.

CONSTRUCTION OF DIETARIES: PREPARATION AND CULINARY TREATMENT OF FOODS.

(Continued from page 325).

In the treatment of animal food there are several points for consideration. In the first place it is always best to prepare the animal for the shambles by fasting it for a few hours before it is slaughtered, as partially digested food, and the food recently absorbed into the system quickly pass into a state of putrefactive decomposition and taint the whole carcass; besides which, a day's repose is often necessary, to quell the excitement occasioned by the journey or voyage which the animal may have made on its way to the place of slaughter. In the second place, it is proper to remove as much blood from the body as possible at the time of killing, as this also is apt to pass into a state of decay. The regulations of the Jews in this particular are most effectual, and are derived from very ancient statutes in Leviticus, which ordain that no manner of blood, whether it be of fowl or of beast, shall be eaten by man; and with the view of letting as much of it flow away as possible, the practice is to slaughter every animal by cutting its throat with a sharp knife. There are, indeed, the most precise rules for this purpose. In some countries, however, the blood is regarded as a very nutritious part of the animal, and great pains are taken to prevent its escape. Dr. Livingstone says, that many of the South African tribes kill the beast by thrusting a javelin into the heart, so as to prevent the loss of blood. But in these cases the meat is never kept, but is eaten directly after the animal is slaughtered. A proposition has also been made in this country for killing animals by letting air into the pleural cavities, whereby the lungs collapse, and so cause almost instant death by asphyxia without loss of blood; but the practice is objectionable, not merely because of the liability of such meat to quick putrefaction, but also because of the difficulty of discovering disease in it.

In the third place it is proper that the carcass of the animal should be allowed to cool and set thoroughly before it is packed for conveyance to the market. If this is not attended to it soon decays. It should also be packed loosely or even freely exposed to the air, as the colouring matter of the blood and muscles continue to absorb oxygen, and to breathe, as it were, for some time after death, and while this goes on decay is arrested.

Lastly, all meat should be kept a little short of decomposition before it is cooked, or even until decomposition has just commenced, as the tissue then becomes loose and tender, and very digestible.

In the culinary treatment of animal food, the objects are fourfold:—

1st. To coagulate the albumen and blood of the tissues, so as to render the meat agreeable to the sight.

2nd. To develop flavours, and to make the tissue crisp, as well as tender; and therefore more easy of mastication and digestion.

3rd. To secure a certain temperature, and thus to be a means of conveying warmth to the system.

4th. To kill parasites in the tissues of the meat.

Now, as the researches of Dr. Beaumont and others have demonstrated that meat is always rendered more and more indigestible in proportion to the prolonged action of heat, it is highly necessary that the temperature should not be continued beyond the point necessary to accomplish these objects. Liebig says, that a temperature of 133° Faht. will coagulate albumen, and that the red colouring matters of the blood and muscle are coagulated and destroyed at from 158° to 165° (say 170°). He therefore advises that all cooking operations, in respect of meat, should be limited to 170°. His directions are that, in *boiling* meat it should be introduced into the vessel when the water is in a state of brisk ebullition, and that the boiling should be kept up for a few minutes. The pot is then to be placed in a warm situation, so that the water is maintained at from 158° to 165°. The effect of this is that the boiling water coagulates the albumen and tissue upon the surface of the meat, and to a certain depth inwards, and thus forms a crust which does not permit the juice of the meat to flow out, nor the water to penetrate into the meat. The flesh, therefore, retains its savoury constituents, and is not too sodden; but if, on the other hand, the meat be set upon the fire with cold water, and then slowly heated to boiling, the flesh undergoes a loss of soluble and savoury matters, while the soup becomes richer in them. The albumen, in fact, is gradually dissolved from the surface to the centre; the fibre loses, more

or less, its quality of shortness or tenderness, and becomes hard and tough. The thinner the piece of flesh is, the greater is its loss of savoury constituents.

This explains the well-known observation, that that mode of boiling which yields the best soup, gives the driest, toughest, and most vapid meat; and that, in order to obtain well-flavoured and eatable meat, we must relinquish the idea of making good soup from it.

If finely chopped flesh be slowly heated to boiling with an equal weight of water, kept boiling for a few minutes, and then strained and pressed, we obtain the very strongest and best flavoured soup which can be made from flesh. When the boiling is longer continued, some little additional organic matter is dissolved, but the flavour and other properties of the soup are, thereby, in no degree increased or improved. By the action of the heat on the fibres of meat, a certain amount of water or juice is always expelled from them; whence it happens that the flesh loses weight by boiling, even when emersed in water (as much sometimes as 24 per cent. of the weight of the raw flesh). In larger masses this loss is not so great.

Even in *roasting* meat the heat must be strongest at first, and it may then be much reduced. The juice which, as in boiling, flows out, evaporates, in careful roasting, from the surface of the meat, and gives to it the dark brown colour, the lustre, and the strong aromatic taste of roast meat. It is doubtful, however, whether the heat of 170° is sufficiently high to insure the destruction of the parasites of meat, and therefore, I would advise that the temperature should be as nearly as possible to that of boiling water (212°).

Of the four methods of cooking which are commonly practised in this country—namely, *boiling*, *baking*, *roasting*, and *frying*, the former is undoubtedly the most economical, and produces the most digestible food, but the flavour of the meat is not well-developed, and it is quite unsuited for many descriptions of meat: the flesh of young animals, for example, consisting of an undue proportion of albumen and gelatine in the tissues, will boil away to a large extent, and so will loose fatty tissue, like that of American bacon; and, indeed, unless the process is well-managed, there will always be considerable loss, as I have just stated, from the escape of albumen, saline matter, and the alkaloids of the meat, into the water, amounting sometimes to from 16 to 24 per cent. of the weight of the joint; and that these are valuable constituents of flesh, is proved by the experiments of the French academecians, who found that when a dog was fed daily upon half a pound of boiled flesh, which had been previously soaked in water and pressed, it quickly lost weight, as much, indeed, as one-fourth of its entire weight in 43 days; and in 55 days the emaciation was extreme. Of course, these observations do not apply when the liquor in which the meat is boiled is eaten with it, as in the case of hashes, stews, &c.

Dr. Pereira states that at the Wapping Workhouse, where mutton (chiefly fore-quarters) and beef (consisting of the brisket, thick and thin flanks, leg of mutton pieces, and clods—all free from bone) were boiled, the average loss in weight was only about 17½ per cent.; but this is under the common proportion, and shows that the meat was from old and lean animals. The ordinary loss of weight in cooking is about as follows in every 100 parts:—

	Boiling.	Baking.	Roasting.
Beef generally ...	20	29	31
Mutton generally ...	20	31	35
Legs of Mutton ...	20	32	33
Shoulders of Mutton...	24	32	34
Loins of Mutton ...	30	33	36
Necks of do. ...	25	32	34
Average of all ...	23	31	34

But although the loss of weight in baking and roasting is greater than in boiling, yet it is chiefly from evaporation, and from the melting of the fat. Flavours also are developed which give a pleasant relish to the meat; but there are many disadvantages to these methods of cooking, as that the surface of the joint is often overdone, when the interior is almost raw; and that the action of the heat on the superficial fat frequently produces acrid compounds (consisting of *acrolein*, and *fatty acids*) which are very distressing to a sensitive stomach. This is always the case when meat is fried or grilled, and is thus subjected to a temperature of 600° or more; in fact, all baked and roasted fatty foods are apt, on this account, to disagree with delicate stomachs; and it is often remarked that, although bread and butter, boiled puddings, boiled fish, or boiled poultry can be eaten freely without discomfort, yet toast and butter, or meat pies and pastry, or fried fish, or roasted fowl will disagree with the stomach. The practice of covering poultry and game with lard, or oiled paper, or thin dough, or even with clay (feathers and all, as is the Indian custom), and then roasting, is no doubt advantageous, as it modifies the temperature and prevents the formation of acrid fatty compounds. It was by some such a device as this that Aristoxenes was able to serve up a pig apparently boiled on one side and roasted on the other—the savoury crackling being suited for stronger stomachs, while the more delicate side of it was best adapted to weaker digestions.

In deciding, however, on the proper method of cooking a joint, regard must always be had for the kind of flavour that is to be developed. Shoulders of mutton and fresh beef are rarely boiled, because of their insipidity. The same is the case with game and poultry, for the barn-door fowl and turkey are nearly the only examples of the latter which can be boiled, and there are no such examples among the former. What should we think of a boiled pheasant? A story is told by a writer in the Society's Journal, of a poacher who wished to seduce a bumpkin new poacher by a practical illustration of the fine flavour of game, and calling at his cottage one day, he left for him a hare warm from the chase, telling him to cook it, and to try if it warn't a nice dinner for nothing. A week after he called again, and asked him how he liked his dinner. "Didn't loike it at all," exclaimed the recipient. "Well, man," says the poacher, "how did e cook en?" "Why, biled en in tarmuts to be zure." Exit the poacher disgusted; and so with venison, although it may be boiled, especially when it is rather high, for about half the time necessary for cooking it, yet it must be roasted for the other half of the time in order to develop its flavour. Hunters in the wild prairies of America, are accustomed to cook the flesh of the deer by *brittling* it in the following manner:—They strip off the long muscles from each side of the spine, both above and below, and tie them up in a roll, after well smearing them with oil or fat; they then roast them, and baste them perseveringly with oil. If opportunity permits they sprinkle them with lemon juice before they are oiled and made up into a roll. The flavour of roasted meat, and its grateful effect on the sense of smell, must have been recognised in very early times, for burnt-offerings are frequently spoken of by Moses as "a sweet savour unto the Lord," and particular accounts are given of the manner in which these offerings of the lamb and the kid, &c., were to be made acceptable, not merely to the Lord, but also to Aaron and his sons who were to eat of them. How far back in history the flavour of roast-pig is eulogised I know not, but it is immortalized in the essay of Charles Lambe. As for the process of *baking* meat it is not nearly so refined as that of roasting, although it has one advantage in the circumstance, that the temperature can be more easily regulated than with roasting.

In making *soup* the object is to extract, as completely as possible, all the soluble constituents of the meat or bone, and when the latter is used it should be chopped or broken into small pieces, and boiled for a considerable time—not less than nine or ten hours. Shin-bones will then yield about 19 per cent. of their weight of fat and gelatine—the soup being, according to Dr. E. Smith, very nutritious, so that 6 lbs. of bones will produce a soup that contains the nutritive power of 2 lbs. of meat, as far as carbon is concerned, and of 1 lb. of meat in respect of nitrogen; but although this may be so as regards the actual quantities of carbanaceous and nitrogenous matters

present, yet it is very doubtful whether they are equally nutritious, for in the renowned experiments of the French gelatine commission, it was found that the soup or jelly from boiled bones would not support the life of dogs, although raw bones, in like proportion, would.

Ox-tail soup is much richer than that from bones alone, as it contains the saline and other constituents of flesh. It is now a favourite and rather expensive soup, although, at one time, it was the humble fare, and almost the only nitrogenous food of the poor Protestant French refugees of Clerkenwell. Prior to the year 1689, or thereabout, the butchers of London left the tails attached to the hides, which were sent to the tanners of Bermondsey, but the poor French refugees, in their extremity of want, bought the tails for a mere trifle, and converted them into soup, which was soon found to be of excellent quality.

Soup made from meat should be obtained in the way already described—that is, a given weight of meat, chopped fine, should be allowed to macerate in its own weight of cold water, and should then be gradually heated to the boiling point, after which it should be strained and pressed. In this way about 3 per cent. of the nutritious matter of the meat is dissolved, besides the saline constituents. If the soup be simmered with the meat for some hours, a larger porportion of organic matter, chiefly gelatine, will be dissolved; and a good soup thus made from shin of beef will contain about 600 grains of solid matter in a pint, and of this about 39 grains are saline.

Lean meat contains about 25 per cent. of solid matter, the rest being water, and of this from 7 to 10 parts are soluble in cold water; rather more than half of this is albumen and myochrome (colouring matter), which are coagulated by heat, and thus if the cold solution of flesh be boiled, it contains only from 3 to 4 per cent. of the meat; and when evaporated to dryness it constitutes the *extractum carnis* of Liebig. It can hardly be said, however, that the nutritive power of this extract is very great, for its chief constituents are *certain acids, lactic* and *inosic*, with *inosite, creatine, creatinine*, and an indefinite colloidal organic substance of a brown colour and syrupy consistence, besides which it contains the soluble saline matters of the meat, as phosphate and chloride of potassium, with a little chloride of sodium. Analyses of this extract, as found in commerce, have furnished from 41 to 60 per cent. of water, from 22 to 41 per cent. of organic matter, and from 8 to 16 per cent. of saline matter. The extract is always acid, from the presence of lactic and inosic acids; and it should be of a pale yellowish brown colour, with an agreeable meat-like odour and taste. It should also be perfectly soluble in cold water, and should not contain albumen, fat, or gelatine.

False views have been entertained of the nutritive power of this extract, for as one pound of it represents the soluble constituents of from 30 to 34 lbs. of lean meat, or from 45 to 48 lbs. of ordinary butcher's meat, it has been assumed that its nutritive power is in this proportion; but Liebig has taken care to correct this error, by showing that the extract, when properly prepared, merely represents the soup or beef-tea obtainable from that quantity of meat; and as it is deficient of albumen, it must be conjoined to substances which are rich in this material, as beans and peas. No doubt the physiological action of the extract is due to the alkaloids and acids which it contains; and as the former of these are somewhat like the alkaloids of tea and coffee (Theine or Caffeine) in their effects on the body, it must be concluded that extract of meat is more of a vital restorative than a nutritious food. It is from this point of view that Parmentier, Proust, and even Liebig himself are disposed to regard the physiological effects of the preparations. "In the supplies of a body of troops," says Parmentier, "extract of meat would offer to the severely-wounded soldier a means of invigoration which, with a little wine, would instantly restore his powers, exhausted by great loss of blood, and enable him to bear being transported to the nearest field hospital;" and in almost the same language Proust remarks that "we cannot imagine a more fortunate preparation under these circumstances; for what more invigorating remedy, what more powerfully-acting panacea than a portion of genuine extract of meat dissolved in a glass of noble wine?"

As in the case of soup and beef-tea, its nutritive power must be assisted by vegetables and other substances which are rich in nitrogenous matters. Conjoined, therefore, with wheaten flour, with peas or lentils, or even with the gluten obtained in the manufacture of starch by Durand's process, it may be made to have the nutritive power of meat. Already there is a preparation of it by Messrs. Peek, Frean, and Co., in which the extract is mixed with baked flour and pressed into small biscuits; indeed, as far back as the year 1851, Mr. Borden, jun., obtained a patent for combining extract of meat with flour, farina, or meal, and baking it in the form of biscuits. In this manner, by using the extract of 5 lbs. of meat with 1 lb. of flour, he produced biscuits which contained 32 per cent. of nitrogenous matter, and 1 oz. of the biscuit grated into a pint of water, then boiled and flavoured, made a good soup. In the case of Liebig's extract of meat, one pound of the preparation is sufficient, with the usual rations of potatoes and other vegetables, to make soup for 130 men; and a strong broth is made by dissolving a teaspoonful of it (about 150 grains) in half a pint of boiling water, and flavouring with salt and pepper.

A still more nutritious broth, containing the albumen of the meat, is obtained by infusing a third of a pound of minced meat in 14 ounces of cold soft water, to which a few drops (4 or 5) of muriatic acid, and a little salt (from 10 to 18 grains) have been added. After digesting for an hour or so, it should be strained through a sieve, and the residue washed with 5 ounces of water and pressed.

The mixed liquids thus obtained will furnish about a pint of *cold extract of meat*, containing the whole of the soluble constituents of the meat (albumen, creatine, creatinine, &c.), and it may be drank cold, or slightly warmed—the temperature not being raised above 100° Ft. for fear of coagulating the albumen.

There are many questions connected with the economy of cooking which I have not time to discuss, but I may state that this Society has done good service for the community in obtaining valuable information as to the simplest and cheapest apparatus for the purpose. Foremost among them is the cooking-pot of Captain Warren. It is a sort of double sauce-pan, and is easily made by fitting a small covered sauce-pan into a larger one. The inner vessel contains the joint or other thing to be cooked, and the outer one has a little water in it, so that the temperature in cooking can never exceed 212°. By this means the joint is cooked in its own vapour without coming into contact with water or steam, and thus it cannot lose its soluble constituents; and if it be desired to improve the flavour of the joint thus cooked, it may be afterwards roasted for a short time before the fire. The loss in weight under these circumstances is not nearly so great as in the common way of cooking, and the flavour and tenderness of the meat are considerably increased; besides which, there is the certainty of cooking the joint equally throughout, and not over-dressing it. Moreover, by the adaptation of a steamer to the outer vessel, vegetables may be also cooked at the same time. When the meat is boiled by this process there is little or no loss of weight, and even when it is afterwards roasted, for the purpose of improving its flavour, the loss is not nearly so great as when a joint is roasted in the ordinary way. In one experiment it was found that 15 lbs. of meat roasted in the usual manner in the kitchen of the Cambridge Barracks, lost 4 lbs. 4 oz. in weight, whereas the meat cooked in Captain Warren's pot, and then roasted, lost only 2 lbs. 15 oz., so that there was a gain of 1 lb. 5 oz.

Another apparatus of very great ingenuity is a cooking-pot from Switzerland, where the saucepan containing the joint and a little water is, after boiling for a short time, placed in a box lined with felt, and thus left for an hour or two to cook, the conducting power of the felt being so bad that the heat is retained in the most perfect manner. The appa-

ratus is not only economical, but it is also excellently well suited for picnic parties, or for soldiers on the march, who may thus secure a hot dinner cooked while on the journey.

The cooking appliances of the poor are very imperfect, and hence they resort to the cook-shops of their neighbourhood; but even then their meals are scanty and wretchedly cooked. In the poor districts of London three halfpence is the usual expenditure for a dinner by children—a penny going in pudding, and the halfpenny in potatoes. If they pay twopence they are allowed to sit down, and have a little gravy with it. Everybody has heard how the poor of Paris dine *à la squirt*, where the tin soup basins are nailed to the table, and where the attendant Leonoras draw up the seething soup from an hidden cauldron by means of a huge syringe, from which it is driven out into the customer's basin. The price of the meal (4 sous) must be instantly paid down, or the callous handmaid sucks up the soup again into the monster squirt. Scenes like this, and even worse than this, in the abodes of the poor, have urged philanthropists to seek a better means of supplying their wants, without trespassing upon the dangerous ground of charity. In Paris an enterprising widow (Madame Robert) conceived the idea of giving the poor man a good dinner for twopence. Her daily bill of fare was cabbage-soup, a slice of bouilli (beef), a piece of bread, and a glass of wine; and thus, in the neighbourhood of the Marché des Innocents, did she daily provide for some six thousand workmen, who took their dinners in the open air, but sheltered from the weather; and she gained a farthing by each guest. In this country, a like benevolence has set on foot, with more or less success, in different places, restaurants for the poor. In Glasgow, for example, the working-class dining-rooms, which are far above the rude accommodation of Madame Robert, are established to provide a substantial dinner for 4d. or 5d. Long ago, the special correspondent of the *Daily Telegraph*, in writing about them, said that he obtained a capital dinner of good pea-soup, boiled beef, ten ounces of potatoes, and pudding—more than he could eat—for the sum of 5½d.; and a writer in the *Times* also stated that for 4½d. he had a pint basin of pea-soup, a plate of hot minced collops, a plate of potatoes, and eight ounces of bread; while his companion had for the same sum a pint basin of broth, a plate of cold beef, a plate of potatoes, and a slice of plum-pudding, all excellent in their quality, and well cooked. The practice in these places is to provide daily a variety of hot foods, as soup, broth, potatoes, rice, cabbage, pudding, tea and coffee, besides bread and butter, cold pressed beef and ham; and every ration, except meat, is so apportioned as to be sold at the uniform price of a penny. The meat costs three halfpence; and, with the view of clearing off the remainder of the soup after the proper dinner hour, so that a fresh quantity may be made every day, it is the practice to sell the soup and broth, at half-price, from six o'clock to eight o'clock in the evening, and then to give the remainder away. All the articles are of the best quality, and are well cooked. They are bought by contract at wholesale prices; and, although they are sold so cheaply, yet they yield a small profit, and so give the system the stability of a commercial enterprise.

Very recently, too, Mr. Riddle has proposed, in a paper which was read before this society, that arrangements might be made for cooking dinners on a large scale, and sending them out to the houses of the poor. He proposes to prepare, daily, good rations of roasted, baked, and boiled meat with vegetables, and to send them out in 2lb., 4lb., or 6lb. tin canisters, all ready for immediate use, and kept warm in little compartments of a properly-constructed cart. There would be no difficulty about this, and the meat might be delivered in excellent condition, and with great punctuality. None but those who are acquainted with the utter helplessness of the poor in the matter of cooking food, or who know the difficulties of even better classes of persons in this matter, can form any notion of the value of such a proposition; and I should be glad to see it realized.

Original Communications.

SIMPLE DISPLACEMENT OF FOOT.

By BENJAMIN TRAVERS, F.R.C.S.

I HAVE recently seen two cases wherein I believe the injury to have been of a rare though recognised form, viz., a simple dislocation or displacement of the foot forwards and outwards. That part remaining stiff or immovable. The sole being turned upwards and inwards, and the upper articular surfaces of the astragulus being very distinctly observed in their new and purely subcutaneous position.

In the first example, the injury seems to have begun and ended in displacement alone, involving no doubt the occurrence of a laceration of the anterior capsular ligament.

In the second case, the remote effects of the accident leave us no room to doubt that a very oblique fracture of the tibia extending into the ankle-joint determined or facilitated the escape of the foot from its normal relations, to the upper and lateral boundaries of the articulation.

The first case of direct displacement of the foot forwards, and of which accident I conceive the signs to have been very manifest, was lately exhibited and described to me by my friend, Dr. Hensley, of Alfred-street, Bath. It occurred as follows:—In the autumn of 1867, Mr. K—, a tradesman of that city, was riding on the back seat of a double velocipede, which had acquired such great speed in descending a hill, that he became frightened and jumped off. He came into contact with a hard road with extreme violence, feet foremost, the lower limbs being perfectly straight, and the feet extended to their utmost limit at the moment. The subject of this accident is a robust man between thirty and forty years old, having a singularly lean and projecting ankle.

It appears that the first local effect or result of the injury was considerable tumefaction, the superior articular face of the astragulus lying bare and prominent under the skin, which was tightly stretched over the bone, but in no degree torn or broken. The patient was of course unable to rise or stand; the further relation of this accident I will give in Dr. Hensley's own words: "The accident occurred at some distance from home, and I did not see the case until about two hours afterwards. The patient being muscular, and there being no efficient aid on the spot, I did not persevere in my first attempt at reduction, seeing that although I got the foot straighter, I could not restore it to its proper place. Having fastened the limb in a pillow, I brought the gentleman home in my carriage. On our arrival, he was immediately placed well under the influence of chloroform, and the reduction was at length effected with a good deal of force, the foot returning to its place with an audible snap. A mill-board splint was now applied, and the swelling gradually subsided."

Dr. H. goes on to say that several weeks elapsed before Mr. K. was put upon crutches, or allowed to attempt to walk. Though now convalescent, the gentleman appears to have recovered very slowly, and still complains of pain and weakness in the part on descending a hill. At this time (March, 1868) the ankle differs but little from its opposite in appearance, but the malleoli are not quite so prominent, owing to a thickening which remains just behind them and around the tendo-Achillis. In conclusion, Dr. Hensley affirms "that there has been a good and satisfactory recovery from the effects of a rare and formidable injury," an opinion which I apprehend will be readily endorsed by every one who is conversant with the remote effects of dislocation in a part so complex and important as the ankle-joint.

Case 2.—On the 21st January, 1868, I was summoned to visit Master N., æt. 15, tall and slightly formed for his years, who in the course of the morning had been thrown in a riding-school. He fell on the off-side of his horse, which had swerved abruptly instead of rising to the leaping-bar. This young gentleman was unable to move, and the left leg was seen to be twisted behind its fellow, the

toes of the left foot projecting, and being, along with the sole, fixed and abruptly inverted. There was complete immobility and great pain. A bystander seized the foot, and after a coarse and prolonged effort, succeeded in restoring the part to its right bearing in relation to the bones of the leg. Still, the patient could not stand; and after his removal to his own home I discovered a great sub-fascial effusion of blood along the lower third of the limb, and which for some hours appeared to be progressive. Presently Master N. was attacked with a violent subsultus tendinum, and he passed a very restless night. A free mercurial purge removed this disorder of the system, and it did not recur. I assumed for some days that there must be a fracture of the tibia at least, if not of both bones, in the immediate vicinity of the joint; but the swelling of the lower third of the leg was so excessive as to preclude the possibility of my ascertaining that fact by manipulation in the first instance.

I presently applied laterally two strong gutta-percha splints throughout the extent of the injured leg and ankle-joint, the foot being first firmly secured by plaster, and the entire limb being finally enveloped as high as the knee-joint by a six yard length of Churton's stocking bandage; the injured part was further secured by being tied into a large pillow, and by being allowed to rest on the heel in a semiflexed posture. At the end of one month I removed the splints, and now a cloth roller was applied, plentifully smeared with thick starch, and after wearing this "appareil" constantly for another five weeks, I substituted stripes of soap cerate spread upon cloth, also the stocking roller instead of the starched bandage. At the expiration of ten weeks exactly from the date of the accident, my patient for the first time sought to be allowed to stand and move about with the aid of a stout stick.

In this case the fact of the tibia having been broken obliquely into the joint became patent after the removal of the starched bandage, by which time all swelling had subsided. The line or track of new matter (callus), and a somewhat altered relation of the fissured extremity of the tibia (involving, of course, the internal malleolar process), whether to the knee above or the ankle-joint below, are now obvious. The part looks gibbous, and the foot has a decided twist, so that in walking the outer margin of the sole comes first to the ground, but there is no variation in the length of the two limbs, and progression is at this time effected with ease, with or without the aid of a cane.

Remarks.—Dupuytren in the "Lecons Orales," Article 10, vol. 1, also Hamilton, of Buffalo, in the United States, who has written a treatise which was published in Philadelphia in 1860, both speak of this form of displacement; but no where do I find any mention of fracture such as occurred in the case under my own observation.

M. Malgaigne affirms that of four or five examples which he had seen of this accident only one was unaccompanied by a wound, "Sans rupture des tegumens." It will be observed that at present I am not speaking of "Mr. Pott's fracture," so-called, but rather, if the expression might be permitted, its opposite. That is to say, that whereas in the case where the sole of the foot is turned outwards, the fibula is broken across at an uncertain distance above the ankle-joint, so where the pedal aspect is the converse of the above—that is to say, facing directly inwards, it will occasionally be afterwards found out that the tibia has been broken, although excessive effusion renders it impossible always to establish the fact with certainty, at the same time as that of the more apparent injury—viz., the dislocation of the foot.

I cannot conclude without observing, that on these occasions a surgeon is reminded of the very rare opportunities afforded to him for establishing beyond the reach of cavil all the local causes and consequences of a dislocation by a dissection of the recently injured parts.

Such records as we now possess in the works of Cooper, Dupuytren; Smith, of Dublin, and some others, are invaluable. All the true ginglymöid articulations are especially sources of doubt, when recent examination has not enabled us to verify apparent consequences; and further, it should always be borne in mind that the sudden accession of a great and progressive tumefaction will often baffle, and, for a time, arrest the exploratory powers of the most experienced surgeon.

CASE OF TETANUS FOLLOWING AN ATTACK OF CHOLERA.

By G. STEVENSON SMITH, L.R.C.S.E.,

LATE MEDICAL SUPERINTENDENT EDINBURGH CHOLERA HOSPITAL, 1866.

THE perusal of Dr. Walter G. Smith's interesting paper on paralysis subsequent to cholera, which appeared in THE MEDICAL PRESS AND CIRCULAR of February 26th, has induced me to lay the particulars of the following case before the profession. That cholera belongs to the great class of nervous diseases, is an opinion which is now held by many of the most distinguished physicians of the day, and the experience of that mysterious malady derived from a careful study of the cases which came under my care during the last epidemic, in the wards of the Edinburgh Cholera Hospital, leads me to believe in the correctness of this view. The disturbance of the nervous centres was especially well marked in the fatal cases occurring amongst children, in almost every one of which convulsions preceded death; while in the case of nearly all the adults who recovered, distressing and persistent hiccup harassed the patient, sometimes for days. In none of my patients was the choleraic attack succeeded by paralysis, but in the case about to be narrated the most violent tetanic spasms came on suddenly and unexpectedly during convalescence, and were clearly the result, I think, of the action of the cholera poison upon the ganglionic system of nerves.

C. A., a nurse in the Cholera Hospital, was seized with choleraic symptoms on the 13th October, 1866, which continued with severity for about three days. On the 16th she was feeble, but considered to be convalescent; and on the day following secondary fever set in; the tongue was parched and brown; the pulse full and bounding; there was great thirst, violent headache, &c. This attack continued till the 21st; and by the 24th she was so far recovered as to be able to go about the ward, apparently quite well. She continued to improve till the morning of the 31st, when she was suddenly seized with violent tetanic spasms of the hands and forearms. The lower jaw was likewise fixed. The fingers were firmly flexed on the palms, and the hands were forcibly bent to a right angle with the forearms. Attempts at extension were attended with much pain. She was in great agony; the face was flushed and the eyes anxious. At the same time she complained of prinkling in the feet and ankles.

The hands and arms were bathed with mustard and water, turpentine stupes were applied to the spine, and chloroform was administered. Large doses of the bromide of potassium were then given, with the object of relieving the spasms, but as this was productive of no good result, the patient was put upon the tincture of cannabis indica, thirty drops being given every three hours.

This treatment was commenced about 8 P.M. on the 31st, and towards morning the physiological effects of the remedy made their appearance. She talked and chatted continuously, and conducted herself like an insane person. About 4 A.M. the spasms of the left hand were overcome, so that she could partially open her fingers, but the right hand remained firmly clenched. No more of the cannabis was given during the 1st of November, but in the course of the day the spasms of the jaw and of the right hand gave way, and although the power of comprehension was very much enfeebled for some days, all tendency to spasm had passed away. She left the hospital in perfect health on November 6th.

THE RATIONAL TREATMENT OF CONSUMPTION.

By JOHN MULVANY, M.D., L.R.C.S.Ed., &c.,
ASSISTANT-SURGEON, R.N.

A CAREFUL perusal of the various methods of treatment advised for consumption will, I think, satisfy anyone that whatever claims each or any of them may have to the consideration of the faculty on the score of efficacy, few are advanced on that of rationality. Those most in vogue at the present time, on the continents of Europe and America, seem to have been suggested by observing the immunity from pulmonary tuberculosis which certain classes of animals and men enjoy—viz., the carnivora, the drunkards, and the obese, and since the cuisine is as completely dispensed with by the first, as the attractions of teetotalism or the allurements of the banting system are ignored by the others, raw meat, brandy, and saccharine materials have been looked upon as possessed of prophylactic properties; to endow them with curative virtues required but an inappreciably greater stretch of the imagination. Raw meat and brandy have, accordingly, been lauded as perfect cures in France, whilst the eulogiums bestowed on whiskey in America for its efficacy in most pulmonary affections, have elevated the imbibition of cocktails from mere dram-drinking into a necessary sanitary precaution. A similar logic causes the phthisical patient to be stuffed with grapes *ad eructationem* in some of the Rhenish provinces. Those methods would certainly be more rational which, based on the supposition that the disease is the result of a deficiency of certain elements in the blood, would seek to rectify the evil by ingestion of these elements, were such a deficiency established, and the *rôle* which it plays other than conjectural; or, again, that which, presuming that the suppression or vitiation of the healthy secretion of a particular gland is the point *de depart* of the malady, would endeavour to obviate injurious consequences by administering a preparation calculated to act as a substitute for said glandular secretion. But this theory, resting on the functions assigned the gland in question by C. Bernard, is open to the very serious objection that Bernard's views have been controverted by Frerichs and Lenz. However unsound this theory may be from the shaky foundation on which it rests, it is well deserving of attention, not alone for its ingenuity, but for its deducing the treatment from the supposed origo mali, a practice, unfortunately, but little observed in regard to phthisis; the treatment of which, if not empirical or special, is seldom rational, frequently routine, and too often confined to the symptoms. To pounce upon a single symptom, such as cough, or a train of symptoms—indigestion, debility, night-sweats, &c., and to seek to cure the diseaes by their removal, would be as logical as to attempt the eradication of the Fenian conspiracy by hanging Paddy O'Carroll in the wilds of Connemara; similarly irrational would be an attempt to extinguish the morbid cell-action in the lung by injections or inhalations, were means not taken to remove the pathological causes whereby the elaboration of fresh tubercle continues to be effected. But whilst the secondary effects of tubercle should not be neglected, our efforts should tend to the removal of its primary cause; to effect this a thorough appreciation of its pathogenesis will be our best guide, and whilst considering it absolutely essential that our knowledge of the morbid actions which lead to its production be complete, I by no means consider it important, as far as treatment is concerned, whether we adopt the views of Virchow, Rokitansky, Bennett, Dawson, &c., in regard to its actual formation, provided we recognise the element itself as the abortive offspring of unhealthy cell-action, a fact which alone stands saliently forth from the great diversity of views entertained on the subject.

The idea seems to be pretty generally entertained, that phthisis is a disease in which excessive oxidation is rampant, kindling a conflagration which rapidly consumes the hydro-carbons, disposing of fats with an avidity surpassing that of a Russian sailor for tallow, elevating the natural heat of the body several degrees, and requiring a *bonne bouche* of cod liver oil, alcohol, fat, or sugar to draw off its attack from the tissues. I shall endeavour to show that cod liver oil and alcohol play a different *rôle*, and that the debility, emaciation, and high temperature of phthisis have a different import to that usually assigned to them, and are attributable not to excessive but to deficient oxidation. Selecting cases for observation in which the phthisical patient is free from hereditary taint and devoid of the peculiar conformation of body supposed to predispose to it, we will find that the agencies whereby it was brought about were those by which the blood was insufficiently arterialised. The oxygen inspired was insufficient to effect the perfect transformation of the tissues, or the carbonaceous elements, which should have been eliminated *per cutem*, accumulate from the impediment offered to their excretion by a systematic disregard of personal cleanliness; the effects of the former *pur et simple* may be witnessed in the tubercle formed in the lungs of the Ethiopian inhabitants of the Antilles. These, remarkably cleanly in their persons, performing their ablutions with the frequency of the Mohammedan, and the efficiency of the South Sea Islanders, sleep as a rule, *ventre à terre*, on the crowded floors of their miserable shanties (beds being articles *de laxe*, only used in sickness or for a siesta), puffing the products of expiration into the nostrils of those of their relatives, who, stretched out in the same original manner, form a carpeting for the floor certainly unique, if not elegant. Thus in Nassau, the American Madeira, the climate of which is celebrated for its anti-consumptive qualities, the prevalence of the disease amongst the dusky children of Ham, forms a remarkable contrast to the immunity observed amongst the white settlers. On the other hand, amongst the blue-nosed inhabitants of the New Dominion, in whom a hydrophobic dread of water renders the condition of the cutaneous surface the antipodes of that observed amongst the West Indian negroes, and whose morning toilets are but a trifle more elaborate than those of the Osages, Indians, whose hands are never brought into contact with water, *en cado tierra su uso*, a sweet varnished cutaneous surface supplemented by the imperfect ventilation of their sleeping apartments, from which the cold wintry air is scrupulously excluded, brings about the same result. This is most conspicuous amongst the bateaumen, scowmen, and sailors. But in Cuba, the origin of tuberculosis may be studied on the grandest scale. In 1853, according to the tables of Don Ramon de Pina y Penuela medico mayor, &c., it appears that whilst one in 787 civilians suffered from consumption, the soldiers became phthisical in the proportion of 1 to 55. This marked preponderance of the disease amongst the military he attributes to overcrowding in small barracks, "*El hacinamiento de muchas personas in una misma habitacion.*" It may perhaps be imagined by those unacquainted with the Spanish soldier, that an irregular life had something to do with it; but, judging from my own experiences, I would say that the Spanish soldier is a model of sobriety. At the time of the allied expedition to Mexico in 1861, it was no unusual sight to see a French soldier or British marine describing Hogarth's line of beauty in his walk through the streets of Vera Cruz, but to see a Spanish soldier drunk was *nigroque similima signo*. I never saw one. Were the percentage of consumptive cases found amongst the crews of merchantmen or other small ships, where each man's berth contains but from four to twenty cubic feet of air, it would, I presume, equal that met with amongst the soldiers of the ever faithful Isle, a percentage so enormous as to strongly militate against the idea that a peculiar habit of body is necessary on which to engraft the disease. That a tuberculosis diathesis exists is unquestionable, but that persons having the peculiar build and all the insignia of predisposition often escape the disease is as obvious as is its production in those on whom no such significant traits denote its latency. I have lately had under my care a young man wholly beyond the suspicion of being

hereditarily predisposed, who became the subject of phthisis of such an acute character that in less than two months from its earliest symptoms a vomica had formed in his right lung, extending from the apex to the upper margin of the third rib, and measuring two and a-half inches in width, and in less than a month afterwards tubercle commenced to form in the apex of his left lung. The cause in this case was simply sleeping in a crowded apartment, where his twenty cubic feet of air was not perfectly renewed from without, whilst being vitiated by the air expired from the lungs of his comrades, who slept near him. The evil effects produced in this way were not in his case "owing to constitutional laziness, neutralized by active exercise in the open air during the day," as in the case of his messmates. What were the means whereby tubercle was engendered in this case? It could certainly not have been excessive oxidation, for physiologists tell us that the effects of respiration on the atmosphere are a diminution of its oxygen and an increase of its watery vapour and carbonic acid; and the experiments of Pettenkofer and Vogt show that more oxygen is absorbed during sleep than during the day. Thus, in this case there was a greater demand for oxygen when it was least attainable, and as a consequence defective æration of the blood necessarily ensued, from retained carbonic acid, &c., the effects of this retention being manifested with a rapidity inversely proportionate to the daily out-door exercise taken, and the cleanliness of the skin.

Under all similar circumstances, the accumulating carbonic acid, acting as a physiological stimulus to the heart, gives rise to one of the earliest symptoms of phthisis—viz., a quick, small pulse. Its acceleration at first is rarely permanent, because the accumulated stimulant is from time to time so reduced by open-air exercise, perspirations, &c., that the inhibitory influence of the pneumogastric being no longer overpowered, reduces the heart's action to its normal condition; the perspirations are therefore salutary, carrying off the superabundant carbonic acid, and thus assisting the lungs. The great amount of lung supplied to man, and the great capacity for the absorption of carbonic acid possessed by the tribasic phosphates, seem to evince that nature had foreseen and made provision to a certain extent against its undue accumulation. Her good intentions are, however, frequently frustrated; accumulation takes place: the blood insufficiently ærated is not adequate to the perfect nutrition of the nervous system, and various morbid sensations ensue—anomalous pains, lassitude, despondency, headache, and palpitation; the muscular system suffers *pari passu*, the imperfectly arterialised blood being unable to repair the waste of disintegration: debility and emaciation ensue, and instead of urea, carbonic acid, sulphuric acid, and water, resulting from the transformation of the used-up tissues into which they are converted during health, by a sufficiency of oxygen, various morbid products of sub-oxidation are formed, lactic acid instead of carbonic, oxalic and uric acids instead of urea, the amount of which in the urine becomes accordingly diminished; these thrown into the circulation cause from time to time a perturbation of system somewhat analogous to that produced by sudden suppression of the cutaneous secretions. Rigors result from irritation of the motor and sympathetic nerves, the latter by driving the blood from the skin by the extreme contraction of the small arteries produced, gives rise to the chills, which soon pass into flushes and perspirations, as the excitation of the sympathetic passes off, and is replaced by depression. During this state the tubular glands of the stomach are called into increased activity, on account of the increased flow of blood through the small arteries which supply them, and an effort is made to rid the system of the acids already referred to; in this way these organs become to a certain extent excretory as well as secretory. To the excess of acid thus thrown into the stomach the indigestion so frequently met with in the early days of phthisis, characterised by an enlarged and flabby tongue, usually of a reddish colour, less frequently, and in the more active cases, covered with a greyish yellow fur, deranged appetite, disinclination to fat, with acid eructations after its ingestion, may be attributed. "In diabetes," says Dr. Bence Jones, "cream, butter, fat, and oil, check the wasting of the body but in excess of acidity, these articles of food often give rise to great distress in the stomach." In this way the inability of some persons to take cod liver oil becomes intelligible. That this excessive acidity results from a deficiency of oxygen may be demonstrated by administering medicines, such as nitro-muriatic acid, chlorate or permanganate of potash, which, by yielding oxygen sufficiently abundant to effect the perfect transformation of the tissues, cuts off the source of its supply, and remove the dyspeptic symptoms, *sublata causa*, &c. The still further increase of carbonic acid in the blood, will gradually retard the circulation in the capillaries of the lungs, until finally, some of the apicial ones become blocked up by the clustering corpuscles, occasioning the dry, irritative cough of the early stages. Expectoration, at first frothy and scanty, afterwards more copious, and occasionally bloody, as the ore-distended capillaries exude serum or rupture, soon ensues. A greater activity of the respiratory and circulatory organs now comes on. The heart becomes permanently accelerated, and the blood therefore ejected with greater velocity, and in a smaller stream, from the right ventricle is propelled against the semistatic blood in the capillaries with such an impetus, that part of it is thrown back against the succeeding wave with such a rebound, that the arterial walls, narrowed by the elasticity of their coats to suit the diminished volume of the arterial stream, are so suddenly stretched, that a souffle is produced—a souffle which I am certain I have heard long before any formation of tubercle had taken place, and could not therefore be due to pressure; in this way the aneurismal dilatation observed by Lebert may also be accounted for. To a retardation in the capillaries succeeds a coagulation, a condition pretty generally conceded to be that which immediately antecedes the production of tubercle, and from which it is manufactured, possibly by the cellular, nucleur hypertrophic, or cytogenetic, &c., methods; or, possibly, some of the superabundant fibrine which results from imperfect secondary assimilation, or from insufficient oxygen to reduce it to products of lower composition, as Lehmann explains its increase in pneumonia and pleuritis, becomes deposited, as in other hyperinotic diseases, and by its presence or pressure may, acting as Dr. Lionel S. Beale shows a grain of sand on the conjunctiva to do, so alter the conditions under which cell-life was normally carried on in the cellular sheath of the blood-vessels, that a freer access of pabulum to the germinal matter takes place, increased multiplication of cells ensues. Proliferation thus stimulated by one inordinate supply of deteriorated material is carried on with an activity incompatible with the formation of an homologous product; tubercle results encroaches on the neighbouring structures, softens in the centre, breaks down, is expelled by expectoration, and leaves a vomica.

A vomica appears to me to be a species of propaganda for the conversion of healthy lung into fresh tubercle; issuing as emissaries, the morbid impressions it produces on the nerve filaments in its propinguity to the circulatory and respiratory organs, it sets *en train* a cycle of actions, which eventuate in its own aggrandisement, or in the formation of a new vomica, furnishing thus, in the periodical formation of fresh tubercle, the most obstinate impediment to a successful treatment. What breathing a vitiated atmosphere is to the production of the primary heterologous formation, that is a vomica to its subsequent development. The patient may have been removed to a healthy atmosphere, may have a first-rate appetite, a capital digestion, may take open air exercise, be strictly observant of hygienic requirements, have but slight cough, little expectoration, and no night sweats, and be gaining in weight at the time that fresh tubercle is being formed. This gaining in weight, usually regarded as indicative of the favourable progress of the disease, though by no means incompatible with the formation of new tubercle, is a con-

summation most desirable to witness, inasmuch as it shows that the digestive functions, no longer embarrassed by excessive acidity, are being healthily performed, that healthy chyle is being poured into the blood, and that assimilation, primary and secondary, if not quite perfect, is not far from being so. Nevertheless, the respirations remain quickened, the pulse accelerated, and the temperature of the body high, evincing the vitality of the disease, and prognosticating an impending exacerbation from the tuberculous material which is even now being fabricated. The means whereby this is effected are, I am inclined to think, brought into operation by the vomica thus:—By the morbid action going on in its interior, the nerves which ramify on its walls are necessarily irritated, and these being furnished by the pulmonary plexuses anterior and posterior formed by branches of the pneumogastric and sympathetic, the irritation extends to the trunks of these nerves; by the vagi 'tis transferred to the muscles, which co-operate in respiration, stimulating them to increased frequency of action, but as the bronchial muscles are nearest to the seat of irritation, and are, moreover, subject to the frequent contact of offensive sputa passing over them in expectoration, as well as to the influence of the carbonic acid, which severe coughing causes to accumulate, it is not unreasonable to suppose that they are thrown into a state of spasm just as are the urethral muscles by acrid matters contained in the urine, or the sphincter of the pupil by neuralgia of the supra or infraorbital nerves. By this spastic condition the expulsion of sputa from the vomica is rendered difficult, the impediment which it offers giving rise to a heart-rending, frame-shaking, often house-shaking cough, almost as unendurable to the listener as the subject of it, and which nature, more potent and not less pitying than man, relieves in her own way—transferring the irritation to the stomachic extremity of the pneumogastric, she relieves the spasm by the vomiting induced. The same condition of bronchi offers also an impediment to the free entrance of air, and thus the blood moving but slowly in the capillaries on the walls of the vomica, for reasons that will presently appear, tends to stagnate from the undue amount of carbonic acid with which it remains charged. The irritation propagated to the sympathetic through the pulmonary plexus, seems to be more widely diffused, extending to the heart and arterial system, but as in the case of the pneumogastric, we may suppose the irritation is most felt in contiguity to the seat of the irritant, and that those blood-vessels on the walls of the vomica are most influenced by it. The experiments of Dr. Loven on the dilatation of arteries from nerve irritation seem to warrant this conculsion, since a diminution in volume occurred in the vessels in proximity to the irritant quite as often as dilatation. The greater contraction of the coats of the small arteries on the walls of the vomica will accordingly render the transit of blood through them less facile than through those vessels less constricted, and the circulation in the capillaries to which they lead is consequently rendered slower, whilst the diminished vis a tergo not being able to propel the blood onwards through the pulmonary veins against the resistance offered by the prolonged expiratory efforts which take place in coughing, causes congestion to take place, which is further favoured by the impediment offered to the free interchange of gases by the spastic condition of the muscular fibres of those bronchi which lead into the vomica. Or the same result may be brought about in the manner witnessed by Dr. Norris—"When," he says, "the spastic contraction of the smaller arteries took place, there was a reverse current into the capillaries from the veins, which continued until the capillaries remained full. This fullness remained permanently, or until relaxation of the artery permitted arterial blood to be propelled into them; coagulation, irritation, changed condition of life in the cells of the connective sheath of the blood-vessels and tubercle, are the subsequent steps." But why have we not a souffle produced as in the first instance, by the diminished calibre of the small arteries, and the congestion or coagulation of the blood in the capillaries beyond them? Because the contracted condition in which these vessels are held by the irritated sympathetic prevents their sudden dilatation by the shock of the rebounding against the ongoing blood-wave, the greater contraction in which I conceive those small arteries to be held, which ramify on the walls of the vomica, does not extend to those more remote. The impediment, therefore, which they will offer to the circulation will, from their limited extent, be insignificant, and will not suffice to produce arterial tension during the systolic action of the heart, as the obstructed blood will readily pass on through the neighbouring channels.

(To be continued.)

OSSEOUS ANCHYLOSIS OF THE LEFT HIP-JOINT, WITH RECTANGULAR DISTORTION, CURED BY OPERATION.

By H. W. BEREND, M.D.,

DIRECTOR OF THE ORTHOPEDIC INSTITUTE OF BERLIN.

(Read before the Surgical Society of Berlin.)

Case 1.—M. H. Wilhelm Kruger, 27 years of age, of Klein Wischnewskow, near Zempelburg, was sent to my establishment by Dr. Vossius, residing at the latter place. The patient had formerly been in uniform good health, and dated the commencement of his disorder from Michaelmas, 1860, when he experienced attacks of cold and heat, with acute pains in the right arm and in the back. He was bled, which relieved the pain in the arm, but the attack of acute rheumatism was now directed with great violence to the left leg, and produced, after confining him twelve weeks to his bed, the uncommon and

Fig. 1.

serious deformity (See Fig. 1) which continued down to the time of his admission to my establishment on the 30th April.

Erect position.—If the patient wished to stand upon both feet, though unable to bring more than the anterior third of the left sole in contact with the ground, he was compelled to support himself with both hands on his knees. The upper part of the body was inclined at an obtuse angle forwards to the left. The whole left lower extremity was thrown obliquely outwards. The right side of the nates projected, the left being flattened. Both knees, but especially the left, were bent at obtuse angles. The spinal column formed, with the dorsal lumbar portion, a considerable curve to the left.

When the patient tried to stand free without placing his hands on his knees, he could only do so with the right limb, which then appeared perfectly straight; the knee, including the left pelvis being depressed about 2″, the left thigh being bent and thrown out at right angles. Seen from the back, the spinal column quite normal, the left side of the nates somewhat flattened; the fold, however, being perpendicular. The knee could be placed in any position at pleasure (see Fig. 2).

Fig. 2.

Horizontal position on the back. Small of the back in contact with the bed; right extremity normal, left pelvis 2″ lower, left thigh thrown out strongly at right angles, and anchylosed. On endeavouring to impart somewhat of a rotatory motion to the hip-joint of the diseased thigh, some apparent mobility was obtained, but this was evidently due to the synchondrosis sacro-iliaca alone (see Fig. 3).

Progression without stick or crutch feeble in the extreme, and is accompanied with depression of the left pelvis, the upper arm being supported on the knee, the left pelvis being moved simultaneously and the body powerfully inclined forwards and to the side.

The facts just detailed have been corroborated by presenting the patient to the Medical Society and to the Gesellschaft für Heilkunde in Berlin ("Medicinische Central Zeitung" for 1862, No. 47), and left no doubt as to the treatment in this extreme and rare case of deformity.

The decided osseous anchylosis by which the thigh had been thrown out at a right angle with the acetabulum and immovably fixed there, could neither be overcome by pure orthopedic-gymnastic treatment, nor by myotomy, as it is evident that these remedies could have no effect whatever in removing an osseous adhesion; and operations not involving loss of blood, such as forcible manipulations, were rejected on account of the peculiar nature of the deformity in question, as being of more than doubtful tendency. fractures of the pelvis itself probably attended with fatal effects being easily possible from the employment of such remedies. No alternative remained save either to consider the case as a noli me tangere, or, confiding in former experience, to attempt osteotomy, cutting out a wedge-shaped piece of bone; this proceeding affording, according to all experience, the greatest chances of success, compared with simple excision (*vide* "Heyfelder Statistik der Resectionen" 1861, p. 94).

I performed the operation on the 10th May, 1861, assisted by Drs. Schwartz, Barschall, Rauch, Rosenkranz, and others, in the following manner (see Fig. 3):—

Chloroform administered. The patient lying on the side turned somewhat to the right. First step—an incision of three inches into the skin, commencing somewhat above the trochanter on account of the abnormal position of the thigh, extending obliquely towards the outer side of the body, through skin and cellular tissue down to the bone. The bone, white and shiny, was visible at the bottom of the wound. The portion of bone to be cut out exposed. Excision with Charrière's saw, and finally with a small hand-saw which I preferred to the chain-saw, because the bone being deeply embedded, rendered the manipulation with the latter difficult in the extreme. The sawing through of the last piece of bone was connected with extraordinary difficulties. Immediately after it had been completely severed, the normal position could have been thoroughly restored to the deformed leg, but at the same time, I was convinced that the two ends of bone cut through would be so closely pressed together as to render the failure of the desired *Pseudarthrosis* highly probable. I therefore preferred—

2. Removal of as wedge-shaped a portion as possible of the femur. This process was likewise attended with excessive difficulties, and notwithstanding that the portion of bone to be removed was partially visible and accessible from the incision, it required troublesome labour with chain and hand-saw before a piece of bone about three-quarters of an inch at the base, and tapering to somewhat of a wedge-like form, could be removed. The excision of an accurately wedge-shaped piece was, under the circumstances, impossible.

The whole operation lasted about an hour and a quarter. The hæmorrhage was, under the circumstances, not extreme. No vessels were taken up. My hooks were of great use, as well for affording a better view into the interior of the wound as in retarding hæmorrhage.

The wound was united partly by silk, partly by silver sutures. A compressive dressing of lint, plaster bandages, &c., was employed to stop the effusion of blood. The whole limb was enveloped in wadding, and the patient placed in one of Bonnet's cradles. On account of a former rheumatic disposition, I refrained from local cold applications, but otherwise ordered a strictly cooling regimen.

In the evening the pulse above 90. Patient restless, not complaining of pain however. The lower parts of the dressing red-coloured, but not to such an extent as to cause any alarm as to too great a loss of blood. I therefore considered these secretions as curative. Notwithstanding the administration of ¼ gr. of morphium the night was restless. Towards morning vomiting occurred twice.

On the 11th May, at half-past seven A.M., pulse 100 and full. Appearance satisfactory, tongue furred (white); no pain; somewhat less restlessness; moderate quantity of blood oozed away. Patient drank a cup of milk, and slept for several hours.

Evening.—Pulse 120, no pain; a bloody serous secretion oozing through the dressing, rendering frequent change necessary. Nothing else to complain of.

Night.—Five hours' sleep.

May 12. at 8 A.M.—Appearance good, no complaints; tongue furred (white); pulse 120; secretion from the wound less coloured, but still red.

At 11 A.M.—Pulse reduced to 100; all going on as well as possible.

Evening—The same condition.

Night—Gentle sleep.

May 13, 8 A.M.—No complaints, pulse reduced to 90. Secretion very copious, but not very offensive in smell. Tongue beginning to look cleaner.

May 14.—Removal of first dressing and bandages. Wound half united; dry dressing.

General health in the evening excellent; pulse 90. Dr. von Zizurin, from St. Petersburg, who happened to be at Berlin, examined the patient with great interest.

On the 6th day, six sutures removed; on the 8th day the others. The particulars of the subsequent treatment and cure offer no special points of interest, save that of the periodical appearance of erysipelas, which, as it attacked sometimes the front part of the thigh, and sometimes the back and left side of the nates, could only be regarded as the reaction of the secretion of decomposing matter in the bottom of the wound, which took place in the first months. This decreased with each removal of the secretion, which was further promoted by poultices, and save an incision into the fore-part of the thigh, no artificial assistance was required. Care had to be taken, however, to avoid all irritation whatever, and on this account the proper orthopedic dressing with Bonnet's stocking had to be entirely laid aside in three weeks, as it prevented the degree of cleanliness so absolutely necessary for the cure; besides which the application of a simple sand-bag was sufficient to fix the limb and to prevent any new deformity in the hip. Under the favourable influence of good ventilation, and proper food, the patient was within four months so far recovered that the first trial was made in standing erect. The cure then proceeded gradually, warm baths being used daily, and the hip being carefully *rotated*, until in February, 1862, the first experiment in walking was made, the patient wearing a boot, the sole of which was raised 1½", and he was able to take proper gymnastic exercise without pain, small portions of necrosed bone had been removed before this date, from time to time, by artificial means, some coming away of themselves.

At the present time, the beginning of April, therefore ten and a-half months after the operation, the patient, now presented to the notice of the society, can accomplish considerable distances with the assistance of a small stick only (see Fig. 4). The pelvis is quite straight on both sides, and both sides of the nates as well as the trochanters lie in nearly a right line. The left trochanter projects a little in consequence of a slight exfoliation of bone. The actual shortening of the thigh by one and a-half inches, consequent upon the operation, was manifested above the knee, but is so completely compensated by the elevated sole of the boot as not to be in the least perceptible in walking. It is true that no new hip-joint, in the strict acceptation of the term has been formed, but in consequence of the Pseudarthrosis process which has taken place, none of the functions of the thigh are impeded, with the exception of flexion to a slight extent, all the other motions, forwards, backwards, and sideways (chiefly by means of the ilio-lumbar and sacral articulations), are so readily performed that the former cripple, who has been so fortunate as to recover command over his hitherto useless limb, is enabled to go through even difficult gymnastic exercises (such as swinging on a double rope, &c.) without extraordinary exertion. This result is the less remarkable, as the muscles of the limb operated upon do not differ in the slightest degree from those of the sound one. Finally, that the general condition of the patient is as good as could be hoped for is evident from his healthy appearance.

Case 2.—"PES EQUINUS ACQUISITUS" IN CONSEQUENCE OF A COMPOUND FRACTURE OF THE LOWER THIRD OF THE LEG WITH OUTWARD LUXATION OF THE FOOT—EXCISION OF A CUNEIFORM PORTION FROM THE TIBIA AND FIBULA—CURE WITH RESTORATION OF NORMAL MODE OF PROGRESSION ON THE NATURAL SOLE OF THE FOOT.

Friederich Peterson, 16 years of age, of Dornau, near Wittenberg, son of a landed proprietor, dated his sufferings from a fall from a tree, which occurred two years prior to his admission. The compound fracture which ensued at the time was followed by high fever and secretion of matter, which did not cease until some months later, when a considerable splinter of bone was thrown off. On the reception of the patient in my establishment (May 7, 1861) the following facts were observed:—

In an Erect Position.—He appeared standing on the extreme tips of the toes, the heel remaining four inches from the ground. The ankle, on which was a star-shaped scar, projected outwards, and the leg formed almost a straight line as far as the knee, the foot assuming an oblique direction inwards (see Fig. 5).

In Sitting.—The deformity of the foot just described remained unaltered, the ankle projected abruptly outwards, the tendo-Achillis in a state of extreme tension. The deformity remained unchanged after attempts at reduction. Temperature and colour of the foot normal. The muscular development of the calf differs in size from that of the uninjured leg by about an inch. The thigh was also affected by atrophy, so that it differed from its fellow by about an inch.

In walking, the patient trod with the toes only, the foot being somewhat bent outwards.

All the motions of the foot, flexion, extension, &c., had entirely ceased; those of the toes only, and that to a very slight degree, were present. In the tibio-tarsal-joint not a trace of movement. It is possible, however, that I may have been deceived in this point, but the unsuccessful section of the tendo-achillis, and the employment of the orthopedic method, with an entirely newly-constructed club-foot machine of great power, for a space of more than two months, without the least benefit, convinced me that, besides club-foot, osseous deformity in the tibio-tarsal joint had to be dealt with. Nothing remained, therefore, but osteotomy of the tibia and fibula. This operation I performed August 11, 1860, with the assistance of Drs. Schwartz Wolfert, Gœbel, Rosenkranz, and others, in the following manner:—

1.—*Osteotomy of the tibia.*

A two-inch long incision was made in the skin over the crista, from the commencement of the lower third of this bone, the periosteum laid bare, and a wedge-shaped piece of bone about an inch at the base sawn out by means of a chain-saw, and then a hand-saw. The piece was removed by the double-dissecting forceps.

2.—*Osteotomy of a portion of the fibula an inch in length, the skin having been cut through.*

No vessel was taken up. The parts of bone after the excision were brought together and fixed with plaster of Paris dressing, so that the sole of the foot was brought into a position at right angles with the lower leg. After the operation, the toes exhibited perfect power of motion. Ice-bladder applied. At night morphia and antiphlogistic treatment (see Fig. 6).

The dressing was obliged to be removed on the fifth day, and was replaced by simple splints. For months after this time the foot remained in a padded case, so that the dressing could easily be removed and changed, and the wound inspected. The reactionary fever, although at first severe, did not become excessive during the first few weeks. Save in the first stages of the treatment, no morphia was required. The patient slept regularly at night, and did not suffer serious loss of appetite. Both wounds caused by the operation exhibited from the very first excessively abundant granulators; indeed, in the first six weeks, of so loose a nature that they resembled fungus, and rendered astringent treatment, with quinine and tincture of myrrh, necessary. This was, however, nothing but the beneficial efforts of vis medicatrix naturæ. Hæmorrhage ensued several times, most copiously in September, from the wound in the fibula. It was stopped by compression.

In the beginning of the fifth month the bone had consolidated, and the normal sole restored (see Fig. 6). For the last three weeks the patient has been walking on the sole of the foot with the aid of a shoe raised an inch and a-half. Necrosed portions of bone have been thrown out from the wound, but to a very trifling extent. In the last fortnight some small splinters came away from a sore in the calf. The skin is still thin over the fore-part of the leg, and inclined to erosion. In other respects the condition of the patient is as favourable as could be hoped for. (See Fig. 4.)

FOUNDATION OF NEW PRIZES.—The Academie des Sciences has had added to its already rich list of prizes a bequest by M. Serres of 60,000 francs, for the purpose of instituting a triennial prize for embryology. Also Madame Poncelet, widow of General Poncelet, the great geometrician, has expressed her intention to honour her husband's memory by founding an annual prize of 2500 francs, which the Academy will adjudge to the author of the best work on pure or applied mathematics, whether published in France or abroad.

SMALLPOX and typhus are raging at Tripoli. Among the recent victims is the Arab chief Georgi, well-known for his munificent hospitality to European travellers.

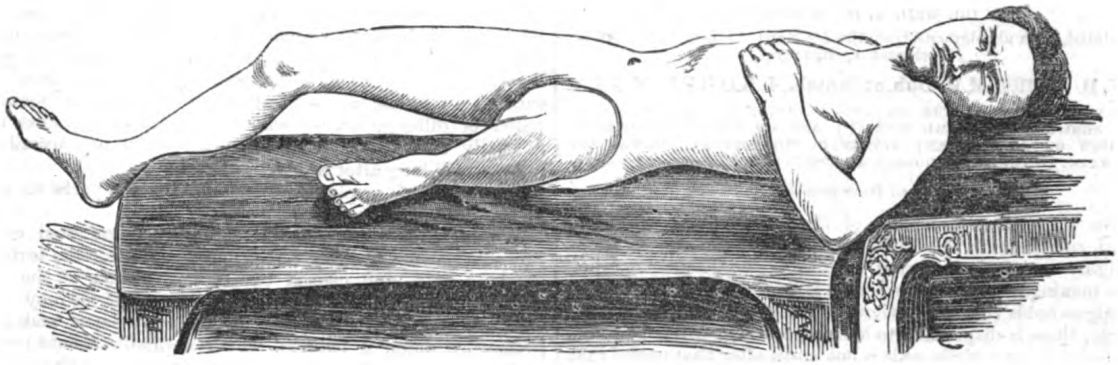

Fig. 3.

Fig. 5.

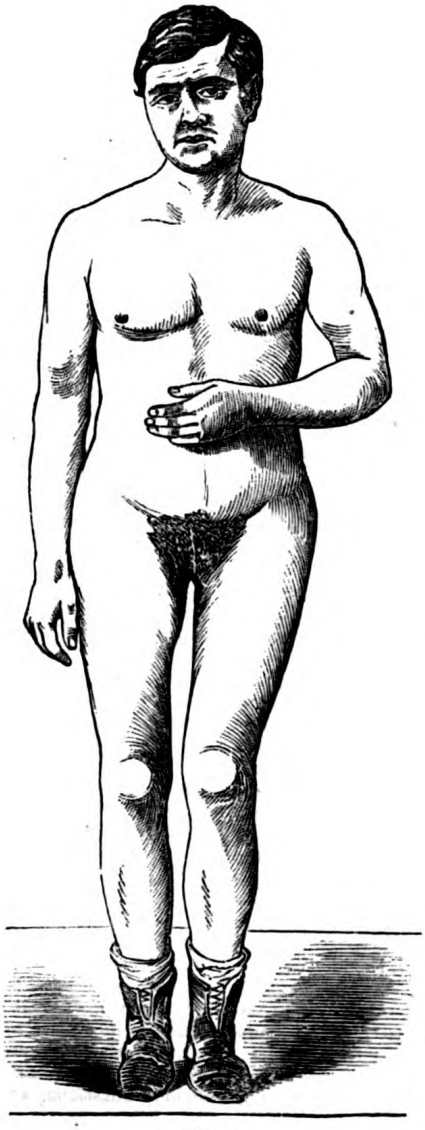

Fig. 4.

Fig. 6.

Foreign Medical Literature.

REPORT OF AN OPERATION FOR HERNIA CEREBRI: WITH OBSERVATIONS.

BY DR. MED. H. HIRSCHSPRUNG.

Translated, with abridgment, from the *Ugeskrift for Læger*, Nos. 16-19, March and April, 1867.

By W. D. MOORE, M.D. Dub. et Cantab., L.K.Q.C.P.I., M.R.I.A.

HONORARY FELLOW OF THE SWEDISH SOCIETY OF PHYSICIANS; OF THE NORWEGIAN MEDICAL SOCIETY; AND OF THE ROYAL MEDICAL SOCIETY OF COPENHAGEN; SECRETARY FOR SWEDEN, NORWAY AND DENMARK, TO THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

(Continued from page 332.)

In now proceeding to speak of the second form of hernia cerebri, *encephalocele*, it will be seen that its genetic relations are highly uncertain. Spring entertains the peculiar opinion, that a meningocele always precedes it, and according to Houel, Malgaigne holds the same view. If the opening in the bone be large, there is disposition to hernia; but this will not be able to form until after birth, as it is not until after that period that the propulsive forces (forced respiratory movements, crying, sneezing, vomiting, coughing), which are necessary to protrude the brain, come into play. In the congenital encephalocele the serous fluid is gradually absorbed, and the swelling, which in its first period is transparent, subsequently becomes soft and pasty. The cases hitherto described have never shown themselves in the sutures or fontanelles. The occipital region is the most frequent seat, the rarest is the anterior part of the base of the skull. Houel, who denies the occurrence of meningocele can of course not assent to Spring's view, which is certainly highly problematical.

Houel seems not disinclined to see in encephalocele only a result of an hydrocephalus, which has existed in a very early stage, but has subsequently been arrested in its development, so that we need find only slight dilatation of the cerebral cavities. The earlier current view of the occurrence of the hernia as the result of defective ossification at one point or other, and consequent diminished power of resistance to the pressure of the brain, has of necessity been given up, as the hernia, as we have said, occurs at all events only exceptionally in the sutures and fontanelles, which nevertheless, if the former view were correct, would seem to present the necessary conditions.

It of course cannot be my intention, with the experience at my command, to attempt to judge between the contending parties. But as a result of the prevailing uncertainty I shall not omit to communicate a case I have had under observation, which appears to me to open a new point for consideration.

On November 22, 1866, I had an opportunity of examining a cerebral hernia in a female infant born six or eight weeks before its time, which was brought into the Lying-in Institution. It had not survived its birth. The head was very small, and the tumour hanging on the nape of the neck was of the same size. The bones of the head were well ossified, and lay close together with linear sutures and without fontanelles. The tumour had a raphe, dividing it into a larger right and a smaller left portion. The raphe had in one part a cicatricial appearance; the skin nowhere exhibited openings. The tumour was soft and elastic, evidently without any fluid contents. Its base was broad, and it protruded through a large opening in the occipital bone, one inch in diameter, which occupied almost the whole squama, so that only a bony angle, one-third of an inch in breadth, remained superiorly, while down towards the foramen magnum only a fibrous cord formed the boundary. When the arch of the skull was removed, only a third of the brain, which in size corresponded to the age of the fœtus, was seen situated in the cavity, while the remainder and the cerebellum lay out in the sac. The cavities of the brain had probably everywhere been a little distended; but this was true especially of the posterior horn, particularly of the right, which was considerably dilated, though without fluid. There was no rupture. The great cerebral ganglia, the tubercula quadrigemina, and the pons varolii lay in the hernia. From the right thalamus proceeded a small club-shaped, soft polypus, and a couple of similar ones from the left. The parts of the cerebral hemispheres lying in the hernia were about equally large for each side, so that the raphe did not correspond to the median line. The excessively strong ossification of the base of the skull, which was much shortened, was striking. The body was otherwise well formed.

This case is best described as a considerable, but simple cerebral hernia. There was no fluid in the hernial sac nor in the cavities of the brain; but the extensive dilatation of the latter in parts rendered it sufficiently evident, that at some time hydrocephalus had existed. Thus far the case would seem to favour Houel's theory above referred to. But there was at the same time a circumstance connected with the bones composing the base of the skull, to which I shall direct attention. No defect existed, but combined with a very small size of the cranium in proportion to the age of the fœtus, there were excessively advanced ossification of the several bones and union of different parts, which at so early a period would normally be separate, and some of which are usually not united until long after birth.

[Here follows a minute description of the parts so abnormally ossified and united.]

We might now consider this morbidly augmented ossification as a secondary phenomenon, produced after the formation of the hernia, and caused by a concentration of the ossific action within a smaller superficial space. But we may also in the strong ossification of the several bony parts, and in the premature union of sutures, which normally should be open, see the reason of the arrest of development of the cranium, and the consequent necessity for the brain, whose development progressed, and whose size constantly increased, bursting its limits and exceeding the space which would restrain its growth. This explanation appears to me to be perfectly physiological, when we are aware of the influence of the sutures upon the growth of the bones. What the result is when the brain remains in its bony capsule is satisfactorily shown, especially by Virchow's investigations respecting the heads of cretins and of idiots. It would lead us too far to enter upon these interesting researches; but I cannot avoid pointing out the remarkable analogy between the state of things at the base of the skull in cretins, as Virchow has described them in an article in his *Gesammelte Abhandlungen* (Zur Entwicklungsgeschichte des Cretinismus und der Schädeldifformitäten), and those found in the last described fœtus.

It will be remembered, that in the latter were found signs of a previously existing collection of fluid in the cavities of the brain, and it is not possible to form an opinion how far this has had any influence in the production of the prolapse of the brain; but a principal part it has scarcely played. I am thus led into the question of the *connection between hydrocephalus and the strong ossification of the bones of the skull*. In opposition to the general view of the necessary connection of hydrocephalus, and highly distended sutures and fontanelles with feeble development of the osseous substance, I shall adduce our experience that strong development of the bones of the cranium and hydrocephalus not unfrequently go together. In my essay on occlusion of the œsophagus I have brought forward two cases (11 and 14), and if we look to the hemiacephalæ which, according to the general opinion, are due to the concurrence of an hydrocephalic brain, and observe the partially strong development of the fundamental parts of the cranium, we obtain a further proof of the frequency of the coincidence. With Virchow we ought certainly to see in an inflammation the common cause of the morbid process in the two different places. The assumption appears to me to be obvious, that a disturbance of equilibrium between the two processes may be the condition of the development of both hernia cerebri and hemiacephalus. If the hydrocephalus acquires the preponderance, the brain perishes, the calvarium bursts and collapses: hemiacephalæ are formed; if the hydrocephalus be less considerable, while the ossification of the cranium is in a state of high development, the conditions for hernia cerebri, as above stated, exist; finally, if the two processes are in equilibrium, the child may be born mature, but comes into the world with a strongly ossified skull, and with water in its head. That this theory does not explain all cases of hernia cerebri, and that the very small ones sometimes met with, especially in the region of the anterior part of the base of the skull, can scarcely be referred to it, will be admitted; in this we need see only a proof, that the cause of hernia cerebri may be as varied in its nature as the hernia itself.

In the above discussion I have wandered rather far from my principal subject, and I now return to consider some more obvious questions, and more closely connected with it. To these belong the signification of the deficiency of skin and the radiating cicatrices, met with in the wall of the sac. These conditions occur so generally in similar tumours, as well as in

those accompanying spina-bifida (meningocele dorsi and hydromyelocele), that they have attracted a certain amount of attention, and as in these phenomena traces have been found of earlier agglutination or adhesion to one or other part of the ovum, they have been placed on a line with the adhesive formations, which commonly occur in diseases of this kind (many examples of which are to be found in the Museum of the Lying-in Institution), and must have served as the basis of the theory contended for especially by Geoffroy St. Hilaire (the elder), according to which a whole series of fœtal anomalies are to be traced to original adhesions between the fœtus and its surroundings. That the theory holds good for certain cases of acrania, hernia cerebri, anencephalia, spina-bifida, Virchow thinks (*die krankh. Geschw., p.* 176) that there is as little reason to doubt, as its invariably obtaining for all cases ought decidedly to be denied. Another question on the other hand remains, whether the defect of skin ought actually to be considered as the result of an earlier adhesion, or whether it ought not, perhaps, rather to be looked upon as a primitive lesion of formation, which in such a case could scarcely, bearing in mind the frequency of the phenomenon, be regarded as without signification for the whole morbid process. For completeness sake, I will still remark, that Meckel, who endeavoured to refer all malformations to arrests of development, was a zealous opponent of St. Hilaire's theory; for him the adhesion was in every case accidental, produced "propter magnam molem proprius ad membranas admotam."

It must not be denied that the collection of fluid often met with in the hernial sac in encephalocele and in hydro-encephalocele, may be formed and often is formed on the spot. The sac contains elements, which normally secrete fluid; this holds good not only with respect to the pial and subarachnoid spaces, but a secretion of fluid is met with, also, in the space between the arachnoid and the dura mater, though normally only in small quantity; but it is indubitable that collections of fluid may take place in this situation during fœtal life, the so-called hydrocephalus externus, which may attain to very considerable degrees, and act destructively upon the brain. When, nevertheless, I believe that in the foregoing case it is to be assumed, that the fluid at all events for the most part, is due to efflux from the interior of the brain, I do so, partly on account of the considerable amount of the collection of fluid (12 ounces), partly on account of the signs of internal hydrocephalus ensuing soon after the operation. It is, indeed, true that we had not in the reducibility of the fluid the decisive mark of a direct connection, nor did the operation exhibit rupture of the prolapsed part of the brain; but the first sign is inconstant, and the operation wound may possibly have hit upon the opening in the cerebral mass, which may thus have escaped notice. We can scarcely expect always to find so wide a communication as that mentioned in the case quoted at page 332.

I am not aware whether there is anything previously on record as to the development of hydrocephalus after the removal of a cerebral hernia; it is, perhaps, scarcely probable on account of the immediately fatal result, which has certainly followed most of the earlier operations of this kind. But of an allied form of disease, which may in many respects be compared with hernia cerebri, the so-called spina-bifida, I am in a position to adduce a completely analogous case. This is communicated by Richard de Nancy (*Maladies des enfants, p.* 30). It seems to me that no reasonable doubt can be entertained that there was in this case a direct connection between the dorsal swelling and the interior of the brain, and that the closing of the external wound was the cause of the accumulation of fluid in the ventricles of the cerebrum.

A child came into the world with a spina-bifida in the lumbar region. The infant was mature, well-formed, and sucked strongly. The spina-bifida did not present the usual appearance of a soft swelling of a red colour; it had burst during delivery, and now a reddish, roundish, surface was found, with an opening in the middle, from which a serous fluid ran in large quantity, soaking the linen. Bathing with Goulard's lotion was prescribed, and, contrary to expectation, the wound cicatrised. While this was going on it was soon observed that slight twitchings and convulsive movements in the face, and subsequently a semi-paralytic condition of the right arm took place. The fontanelles had always been large, but now the anterior fontanel especially began to rise, and 35 days after birth it projected to the size of a hen-egg. Thereupon the bones of the head commenced to separate from one another, and by degrees coma and other signs of compression came on. The cicatrix in the lumbar region remained firm and did not rise, and if it had been desired to procure the discharge of the serous fluid through it, there would certainly have been difficulty in penetrating into the medullary canal. The child's death seemed imminent, nevertheless the infant held out until the seventh month. At last the cicatrix had not been able to resist the pressure, but became arched, and showed a distinct connection between the collections in the two places.

There is one point in my report of the post-mortem examination, to which I should wish to direct attention, that is the defective state of the tentorium. It will be remembered that the middle part was entirely wanting, and with this the sinus quartus—a state of things which cannot fail to exercise a considerable influence on the regulation of the venous circulation in the brain. By affording, in the normal state, a site not only for the sinus transversus, which in this case was present, though not in its usual form, but also for the sinus quartus which again receives the blood from the interior of the brain through the vena magna galeni, the tentorium plays an important part. I did not, in the present case, succeed in clearing up the mode in which nature procured an exit for the venous blood from the interior of the brain, unless it might be through the production of the choroid plexus, which accompanied the hernia cerebri; and I would, therefore, direct the special attention of a subsequent investigator to this interesting circumstance, which, by reason of the constancy in the deficiency of the tentorium in occipital hernia, must often again occur.

In now proceeding, in conclusion, to say a few words on the subject of operation, I shall not allude to the question in general, which cannot be considered as anything definite, but must be modified according to form and other circumstances. My remarks will refer only to the foregoing case. Hydrencephalocele is looked upon, in general, as an affection which is not compatible with prolonged life, and which ought to be left to itself, as any interference can result only in accelerated death. Nélaton says that ligature, incision, and excision, are almost invariably followed by fatal symptoms; when the sac contains fluid and threatens to burst, puncture may be tried with a hope of prolonging life. Spring is quite of the same opinion: by careful puncture with fine needles, in perfectly healthy parts of the skin, we may hope to retard ulceration and rupture of the sac. Of four children, treated in this mode with repeated punctures, 2 lived two months, 2 two and a-half months, but in most cases we will be satisfied with protecting the tumour against external injury. With respect to these considerations too, my case presents no small interest. We here see the child successfully undergoing the most radical operation, the solution of continuity of the brain to be without importance, and the little patient freed from a dreadful malformation, to attain an age which it would not nearly have reached without operation, or with the aid of the above mentioned preventive means. It is, indeed, essentially to the stalked form and small bulk of the cerebral hernia, that the favourable result of the operation must be ascribed, but it certainly is due in part also to the chloroform-narcosis, and to the mode of operation selected. This was the bright side of the picture; but in every analogous case the prospect of hydrocephalus will certainly loom darkly in the background. This is, in fact, only a continuation of the morbid process which has been the starting point of the whole train of symptoms, and to arrest this in its activity, or to remedy the morbid changes which must already have been developed within the cavity of the skull to a certain height, before the occurrence of cerebral hernia, with its attending circumstances, shall have become possible, is undoubtedly beyond the limits of art. We must, therefore, hope not to be laid under the necessity of making a choice.

[It is to be regretted that Dr. Hirschsprung, in speaking of the literature of his subject, has overlooked a very valuable and interesting paper published by Dr. Robert Adams, our present distinguished University Professor of Surgery, in the first series of the *Dublin Journal of Medical and Chemical Science*, vol. i., p. 326, so long ago as the 1st of January, 1833. At that period five cases of "congenital encephalocele" had come under Dr. Adams' observation. Dr. Adams enters very fully into the literature, history, and treatment of the malformation. The drawing given in his figure 5 strongly resembles that of our author. The head, in this case, is preserved in the Museum of the Royal College of Surgeons in Ireland. In one instance the treatment by repeated acupuncture referred to by Dr. Hirschsprung, was employed with marked success.—TRANSLATOR.]

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, APRIL 29, 1868.

THE POOR-LAW MEDICAL SERVICE OF ENGLAND.

THERE is no occasion to conceal our satisfaction at the approval that has been so widely expressed with the tone of our articles on Poor-law matters. The course we have adopted has been dictated by a sincere desire to benefit the poor, and to uphold the honour of the profession. It would be affectation any longer to conceal that our influence is rapidly growing, as larger circles continually recognise the honesty and independence of our motives. To those who have aided us by encouragement, advice, or information, our best thanks are due, and we trust it is unnecessary to give further pledges of our intentions. We have taken up these subjects with no other views than such as may be openly avowed. We have no ulterior purposes to serve. No undercurrents regulate the expression of our opinions. We look upon the administration of the Poor-law from an independent stand-point, and are prepared to carry out to the legitimate end the principles we have endeavoured to set forth.

The condition of those of our brethren who toil in the Poor-law service of the kingdom, has always interested us. They have ever had our ungrudging sympathy, and we trust we shall not in any case fail to urge their righteous claims. They are a section of our profession, and, inasmuch as too many of them occupy positions in which they cannot, or dare not, plead their own causes, we have the greater pleasure in speaking in their behalf. Until the profession, as a whole, finds out that it suffers with each of its members, there is little chance of its attaining the position it ought to hold. Let us then stand by each other, and do our best to help every good movement.

This evening (the 29th), at half-past seven o'clock, there is to be held at the Ship Hotel, Charing-cross, the quarterly meeting of the Metropolitan Poor-law Medical Officers' Association. The proceedings of the last quarterly meeting were fully reported in this journal, but great as was their interest, they will probably be eclipsed by what may take place to-night. The meeting will be called upon to consider, amongst other things, the proposed basis for the equalization of the salaries of the Medical Officers in the London district; the general order imposing additional duties upon Workhouse Medical Officers, and the circular respecting the employment of unqualified assistance.

But besides these questions, the importance of which will be fully recognised, the President (Dr. ROGERS) will resign his office, and as hitherto, he has had no opportunity of referring to his own case since his compulsory resignation, we may naturally expect that he will give his own version of an affair which seems likely to reflect the utmost discredit on the Poor-law Board.

Our readers are well aware that Dr. ROGERS has long been at variance with some of his guardians, and that the persons to whom he was obnoxious have at length got rid of him on a pretence, the frivolousness of which we have already exposed. As we have said before, the matter cannot rest where it is, and to-night the Association, over which he has so well presided, may be expected to consider the question and pronounce an opinion upon it. Is it to be endured that an officer, whose active exertions in the cause of humanity for a period of twelve years have endeared him to the poor committed to his care, should thus be thrust out of office without any form of trial, upon the secret accusations of his enemies in Bumbledom—and that, too, while they loudly repeat that they have no fault to find as to the discharge of his professional duties? We think the Association will have no hesitation as to the answer to be given to this question.

It ought not to be forgotten that when suspended Dr. ROGERS asked for a public inquiry, but his request, though backed by some of his guardians, was refused by the Poor-law Board. Now, why should this authority deny the forms of justice? Was it already arranged that the suspension should be converted into final dismissal? It really looks as if the Board had felt annoyed with the reminders of its duty addressed by the too zealous doctor, and weary of their continual entreaty, had resolved to grant the guardians vengeance upon their adversary. But shall the judgment of an unjust judge be suffered any longer, or shall not rather the whole community give judgment in the matter? There is, however, another explanation equally plausible, of the conduct of the Central Board. It is tolerably well-known that the Workhouse Infirmaries' Association owes its existence to the initiative of Dr. ROGERS, although others have taken up the work and pushed it in various ways, more or less commendable. Now, this Association has been the means of bringing to light things which the Poor-law Board had no desire should be known, and has increased the rapidly growing conviction that there is "Something rotten in the state of" the Board, and the department it mismanages. It is almost impossible to help feeling that this may have gone far to prejudice the Board against Dr. ROGERS, and thus stimulated to a refusal of his just demand for a public inquiry. At any rate it is clear that in refusing to hear him before condemning him, the Board, instead of being judge, takes the position of accuser.

There is yet another thought that has occurred to us in the course of the proceedings, and which we do not care to refrain from expressing. This determination to get rid of an officer who confessedly has not failed in his duty would be comprehensible if we could imagine that he might be an awkward witness in the course of future investigations, and such an idea as this would account for the dogged determination of the board to deny him the justice of a public inquiry.

But such tactics, be the motive for them what it may, will not in the end succeed.

Concealment of the truth, refusal to hear both sides, prejuding anything, is abhorrent to Englishmen, and already there are signs of resentment. Thus, the guardians who voted against Dr. ROGERS have failed to obtain their

re-election to their vestry, and we doubt not other events as significant will occur.

The nation has committed authority to the Poor-law Board that it may act justly, not that its officials may ride roughshod over the rights of the medical staff, or arbitrarily dismiss the most educated persons in its service to gratify petty vanity and spleen of the too easily irritated parochial mind. It is time to call to mind this fact, and since those who should have been first to urge it are—we write it in sorrow—silent, or worse than silent, we would repeat it in the most emphatic manner, and urge upon those of our brethren who can do so, to go to the meeting this evening and lend their countenance to the Metropolitan Association.

More than this! Our last issue contained a letter announcing that a meeting of London and Provincial Poor-law Medical Officers will be held in about a month's time. The veteran GRIFFIN from his sick-bed writes his approval, enclosing his cheque. Surely this will be a large gathering. It ought to be a mass meeting of Poor-law Medical men, and of all who sympathize with them. Every one who can will no doubt be present. But let them not wait till the day. Many arrangements have to be made, and it will greatly facilitate matters for the leaders to know in advance who may be expected. We hope, therefore, all will at once communicate with Dr. ROGERS their intention of being present, so that everything may be prepared for a triumphant demonstration.

THE PROPOSED FELLOWS' ASSOCIATION OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE proposition of Mr. ERASMUS WILSON for a Fellows' Association, has received a definite shape, in his reply to our queries, published in our last week's number, and we think it is one deserving serious attention apart from the incidents of the approaching election. He would ask the Council for permission to meet in the College to discuss questions relating to the general interest. Now, this proposal brings us in presence of one of the strangest anomalies. The charter of the College makes the Fellows an elective body, and yet, that body cannot meet in its own College without the permission of the Council. Is not this a palpable absurdity? The College of Physicians is in this respect more reasonably managed. With them, the Fellows take an active part in everything. It is recognized that they are the governing body, the owners of the funds of the Corporation. They enter their College building as a right, take part in all discussions, and the youngest Fellow can exercise the privilege of the ballot. There is no doubt whatever, that the meetings of the Fellows of the College of Physicians do have an important influence, in just the way pointed out by Mr. WILSON, as that which is desirable in the sister College.

It seems to us, then, that an association of the Fellows might be a first step towards something better—say, in the first place, a recognition of the Fellows as free as that of the College of Physicians. It is monstrous to imagine that an antiquated oligarchy can any longer impose on the profession, and the College has no choice but to make extensive concessions. It is undeniable, we take it, that the elective body can control the College. The Fellows have it in their power to carry what they need. Let them put forward this plan of Mr. WILSON'S, as the very least they can accept, and elect no candidate who will not pledge himself to go as far. It would, we think, be much better, instead of forming an association, to admit that every Fellow had equal rights, and merely to insist on the Fellows' right to meet in their own building, discuss all matters relating to their College, and exercise their votes on its policy. A deliberate assembly like this could not fail to raise the standard of the College and promote the welfare of the whole profession—if once it set to work in earnest. But suppose its debates were languid and feeble, that the conservative spirit inspired its sentiments, and that Lincoln's-Inn exhibited no greater activity and life than Pall-Mall! What then? Still something would be gained—indeed much; for clearly whatever the tone of the assembly, it must, if fully attended, reflect to a large extent the opinions and feelings of this section of the profession. It would, therefore, add greatly to the social position of the college, and rescue it completely from the condition into which it has drifted under the government of a self-constituted oligarchy which cannot endure. To the Fellows then, as a body, we say, be up and doing, claim your rights as electors, place those who will support your claims in the position to aid you, insist on the rights of assembling and deliberating in your college, and having attained this, use it to promote the reforms that are so much needed.

To those who hesitate, and we are glad to know that some members of the council would have no hesitation whatever in conceding the right of meeting, we have only to say, be warned in time. The days are rapidly passing by when such moderate demands can be refused, and unless this much be gracefully and early conceded there may soon come "an ugly rush," which will sweep away all obstructives.

REPRESENTATION OF THE QUEEN'S UNIVERSITY.

OUR readers who peruse the daily newspapers, will have observed during the last few days, an account of a meeting of the newly organised Convocation of the Queen's University, and of the action taken therein respecting obtaining a representative under the provisions of the Irish Reform Bill. They will have also learned, from the answer of Lord MAYO, the difficulty attendant on granting a request which is admitted, on all hands, to be fair in itself, viz.—because doing so would involve taking away one of the seats at present apportioned to Irish Counties and Boroughs.

Notwithstanding the apparent difficulty of the case, few doubt that a seat will be given in the reformed House of Commons to a Member for the Queen's University; and hence it behoves all concerned to see without delay, who would, under all the circumstances, be the best man for the place.

It may be taken for granted, notwithstanding some loud talking to the contrary, that the constituency will not be more democratic than those of the older Universities; and that it will be mainly composed of Doctors and Masters, and of those Bachelors whose standing and years may be held to be equivalent to those required for the time-honoured degree of Master of Arts in Oxford, Cambridge, and Dublin.

Now the Doctors of Medicine are the majority; and hence arises the question—would it not be well to have a

medical man representing a constituency like this? We say, advisedly, YES; and we urge on our brethren not to promise support to a candidate arising from either of the two classes of political place-hunters, or pushing lawyers. These gentlemen are more than adequately represented in the House already. The University of Dublin has long suffered from the want of an independent member, by placing itself at the disposal of a line of lawyers, who like vastly to become M.P.'s at almost no cost, but whose zeal and ambition are uniformly extinguished as soon as they can get comfortable places. We want medical men in the House of Commons; not amateurs, but a few eminent men engaged in practice, whose position and utterances would secure them a hearing on questions with which they are specially conversant; and for want of whom we sometimes have bad legislation, and often no legislation at all. We understand that Sir DOMINIC CORRIGAN, Bart., will seek the suffrages of the electors in the event to which we refer; and, setting aside all political considerations of a party kind, with which it is not our province to interfere, we do not think a better man can be had.

Sir DOMINIC has arrived at that position in his own profession, and in general society, which will secure to the electors those advantages of which we write.

He is in independent circumstances; he wants no title, and no place; he can without much sacrifice spend a good part of the season in London; he is eloquent in address; singularly able in debate; and he is gifted with a physical power of voice which could not fail to make itself heard and felt in the House above all the cat-calls and cock-crowings of the numerous Titlebat Titmouses, the parasites of our great legislative assembly.

On the most important question of elevating our own profession by academic education, his opinions are such as commend themselves to men of all parties and schools; to men of every religion, and of no religion at all.

VISIT OF H.R.H. THE PRINCE OF WALES TO THE KING'S AND QUEEN'S COLLEGE OF PHYSICIANS.

HIS Royal Highness the Prince of Wales, accompanied by his Excellency the Marquis of Abercorn, Viscount Hamilton, Lord James Butler, Sir John M. Stewart, Bart.; Captain Stewart, R.H.A.; Sir H. Pelly, Captain J. B. J. Dormer, A.D.C.; and Dr. Minter, paid a visit to the King's and Queen's College of Physicians on the 24th instant, and was received in the hall by Dr. Churchill, the President, and the following fellows:—

Drs. Adams, Atthill, Registrar; Banks, King's Professor; Beatty, Belcher, Hon. Librarian; Sir D. J. Corrigan, Bart.; Croker, Cruise, Duncan, Dwyer, M. Eustace, Foot, Freke, Gordon, V.P.; Grattan Guinness, Rev. S. Haughton, Hayden, Head, Hudson, Jennings, Johnston, Evory Kennedy, H. Kennedy, Law, Little, Lyons, M'Cready, Moore, Ringland, Sinclair, King's Professor; Smith, King's Professor; Stokes, Professor Travers.

Preceded by the Bedel carrying the mace, and accompanied by the President,

His Royal Highness was conducted to the Council Chamber, where he viewed the portrait of Sir Patrick Dun, by Sir Godfrey Kneller; the statue of Sir Henry Marsh, by Foley; the pictures of Drs. Whitley Stokes, James Leahy, Brooke, Cheyne, Sir Edward Barry, F.R.S.; Dr. Percival, Sir Dominic Corrigan, by Catterson Smith; Dr. Mayne, &c.; the original grant of arms given in 1667, and the stained glass window, presented by Sir Dominic Corrigan when President. He was then presented with the following address:—

To his Royal Highness Albert Edward, Prince of Wales, Earl of Dublin, &c.

MAY IT PLEASE YOUR ROYAL HIGHNESS,—We, the President and Fellows of the King's and Queen's College of Physicians in Ireland, on the occasion of your Royal Highness's visit to this country, beg to offer to your Royal Highness the renewed expression of our devoted loyalty and attachment to her most gracious Majesty the Queen, and to assure your Royal Highness of the great gratification we feel that you have been graciously pleased again to honour Dublin with your presence.

We desire also most respectfully to express the great satisfaction we feel at the presence of her Royal Highness the Princess of Wales, sharing as we do most warmly in the feeling of loyalty and attachment with which all classes of our fellow-citizens have welcomed the arrival of a Princess so universally and justly beloved.

FLEETWOOD CHURCHILL, President.
LOMBE ATTHILL, Registrar.

In accordance with the rule which has been observed during the visit, the address was not read. The Prince was next conducted to the library, where he and his Excellency the Lord Lieutenant entered their names in the visitors' book.

The President, in the name of the President and Fellows then presented His Royal Highness with handsomely bound copies of the lately published memoir of the Marsh statue, and of the volume entitled, "Records of the King and Queen's College of Physicians in Ireland," compiled by T. W. Belcher, M.D., Fellow, and Hon. Librarian of the College. The royal party then left the College, and were loudly cheered on their departure.

The President wore the gold-laced cap and gown of his office; and the Fellows wore the usual (Masters of Arts) cap and gown, with the hoods of their several degrees. Such of the Fellows as had passed the Chair, also wore gold-lace tassels and bands on their caps.

Notes on Current Topics.

The Public Health.

THE return of the Registrar-General for the week ending the 18th of the present month, supplies the following figures. In London and thirteen other large towns of the United Kingdom there were registered 5038 births and 3247 deaths, the annual rate of mortality being 27 per 1000 persons living. The annual rate of mortality for that week in London was 26 per 1000; in Edinburgh 20; in Dublin 22; in Bristol 26; in Birmingham 24; in Liverpool 29; in Manchester 33; in Salford 30; in Sheffield 25; in Leeds 24; in Hull 21; in Newcastle-upon-Tyne 25, and in Glasgow 33. The births of 2453 children were registered in London, 1248 boys, and 1205 girls. In the corresponding weeks of the ten years 1858-67, the average number is 2160 corrected for increase of population. During the week there were 1539 deaths registered in London. The average number of deaths for that week, being the sixteenth of the year, is 1447, so that the death-rate was high, exceeding by 265 the number registered in the previous week.

The deaths from zymotic diseases were 311, the corrected average number being 324. Eighteen deaths from small-pox, 64 from measles, 22 from scaraltina, 8 from diphtheria, 73 from whooping-cough, 36 from fever, and 17 from diarrhœa were registered.

In the different sub-districts of the metropolis 27 deaths from measles were registered, and 12 from whooping-cough; and the deaths from fever averaged 6·2 per 10,000 of the

population, including the deaths in the London Fever Hospital.

Two hundred and seventeen deaths occurred from phthisis, 168 from bronchitis, 98 from pneumonia, 66 from diseases of the heart, and 194 from diseases of the brain and nervous system.

The deaths of three persons from intemperance, of 7 persons from burns or scalds, of 6 persons from drowning, of 8 infants from suffocation, of 7 persons who committed suicide, and of three persons who were killed by horses or carriages in the streets were registered.

Dr. Livingstone.

A LETTER was received on the 20th inst. from the enterprizing traveller by one of his friends in Edinburgh. It explains the causes of delay in his progress, and the reason why no communications have been sent by him to allay the anxiety which was necessarily felt on his behalf. The Johanna men stole away in consequence of being terrified by tales which they had heard, and left him with only nine Nassick boys. One great hindrance to him was, that the slave-traders fear the English, and avoid them. Other causes of delay were the necessity of going round the north end of the lake, the scarcity and quest for food, which led them in a zigzag direction, and rendered eight miles a-day a good march, and the excessively heavy rains. His last date is the 1st February last year when he was in Bemba, and, he thinks on the water-shed, which they were to seek in 10 degrees south latitude, and 31 degrees longitude. "The sorest grief of all," he says, "was the loss of the medicine box, which your friend at Apothecaries' Hall so kindly fitted up."

Gresham Lectures on Medicine.

THESE lectures, which have been delivered for more than three centuries, and are now, perhaps, more largely attended than ever, have during this Easter term been upon :— 1. Sleep ; 2. Pain ; 3. Nervous disorders. In accordance with the will of the founder, practical and therapeutical deductions were—as in former courses—based upon physiological and pathological data.

The state of the brain during sleep was described, of the nerves during pain, and of the nervous system in so-called functional as well as in organic derangements.

The close relation existing between states of mere mental depression—genuine hysteria and hypochondriasis, and the more chronic forms of insanity, was pointed out by the Gresham Professor (Dr. Symes Thompson), and the tendency to regard mental disorder as a special malady, having nothing in common with or due to bodily diseases, strongly reprehended.

The Medical Council.

IT is understood that this body will not meet till June 18th. We hope their debates may be of more service to the profession than has hitherto been the case. We have had plenty of talk but no practical work, unless the pharmacopœia, which was not really produced by the Council, and which might have been brought out by the same men who edited it for a tithe of the cost of the Council.

Sussex County Asylum.

THE report of the Medical Superintendent of the Sussex County Lunatic Asylum is before us. We find it as satisfactory as ever. The mortality is low, the general health good. The alterations that have been in progress ever since 1864 are now completed—enlarging the house from 450 to 710 beds. It is encouraging to see the large amount of useful work done by the patients, particulars of which are given in a series of tables forming an appendix.

Another Compulsory Resignation of a Poor-law Doctor.

THE Poor-law Board has required a medical officer of Cambridge (Dr. Ransom) to resign his post. There is no imputation on Dr. Ransom's moral character, nor upon his conduct with regard to the poor patients under his care. He has, however, had long differences with his guardians, he did not sanction certain entries in the relief-book, and—most heinous of all—he wrote a letter to a newspaper, reflecting on the guardians ! It appears that he too asked for a public inquiry, but the Board says, whatever the result of such a proceeding might be, it would not affect the decision as to the expediency of his continuing in office. Verily, Poor-law medical officers have fallen on evil days. The authorities will not be satisfied until they have driven all honest and independent men from the service. A public inquiry on the conduct of the Poor-law Board may not be far off.

Edinburgh Infirmary.

THE meeting on the 17th, which we have already referred to for the purpose of raising a fund for the re-building of the medical hospital of the Royal Infirmary was a great success. No less than £26,000 was promised that day, and something like £1000 came in daily for some time. It is pleasant to see the Royal College of Physicians of Edinburgh open the subscription with £1000. We believe that the managers of the infirmary need £40,000 in hand to commence with, and that the whole expense, including the removal of certain buildings that interfered with the ventilation was estimated at only £100,000; so that it is now pretty clear that the improvements proposed will be carried out without incurring a heavy debt. The movement is very popular. It will add to the beauty of the district as well as the comforts of the sick poor of the city.

Deficiency of Corpus Callosum.

THE *Archiv für Psychatry* (p. 128-142), mentions a case of deficient corpus callosum similar to that of Dr. Ritchie. It is one, the interesting particulars of which are published by Dr. Sander, of Berlin, in the first number of the new Berlin journal for Psychatry. The brain was in possession of Dr. Griesinger, who allowed Dr. Sander to examine and describe it. The organ had a peculiar form by the posterior lobes being widely apart, and the cerebellum thence being freely exposed to view. Some of the posterior and central convolutions were little developed. The posterior part of the corpus callosum was deficient, as the specimen was only a quarter of an inch thick, and the radiation of the corpus callosum was equally deficient, as its whole width was 3½ centimetre. The commissura mollis was absent. Dr. Sander finds the chief interest in the fact that the development of the posterior lobes corresponded to the size of corpus callosum as Reichert previously believed, and Sander adduces further proof of this from the anatomy of these parts in brains of animals. He asserts, somewhat too boldly, that evidently the deficiency was congenital, most likely owing to deficient development of blood-vessels. Sander has found ten cases in medical

literature. The patient from whom the specimen came was an idiot. Sander gives it as his opinion that idiotism is not caused by the deficiency of the corpus callosum, but of the co-existing defects. The affection cannot be diagnosed during life. Dr. Sander requests his colleagues to send him their experiences.

"Sitting at the Feet of Gamaliel."

We learn, through the medium of the *Irish Times*, that the Surgeon-Extraordinary to the Prince of Wales, the Professor of Surgery in Trinity College, the Professor of Anatomy and Chirurgery in the University of Dublin, and the University Anatomist, in common with "a large number of the principal surgeons in the city," were privileged to *attend* on the Lecturer on Surgery at Sir Patrick Dun's Hospital during an operation for excision of the knee. No doubt the principal surgeons and professors who *attend* with due diligence will receive certificates of competency to excise knee-joints. Truly, instruction never comes too late.

University of Edinburgh.—A meeting of the General Council of this University was held on the 21st, Professor Christison in the chair. It was agreed to record an expression of the great loss sustained by the University in the death of Sir David Brewster. It was also resolved to petition both Houses of Parliament in favour of granting at least two members to the Universities of Scotland. At a meeting of the Town Council of Edinburgh, also held on the 21st, the Lord Provost stated, with reference to the Principalship of the University, that the persons who had been spoken of and suggested for the office of Principal were Sir Alexander Grant, Bombay; Sir James Y. Simpson and Dr. Christison, Edinburgh; Mr. George Dawson, Principal of the Macgill College, Montreal; and Principal Tulloch, of St. Andrews. His lordship stated that the Curators had already held three meetings on the subject, and were likely to hold other two. At a meeting to be held on the 7th of May, the day for the election of Principal would be fixed. The election for the Professorship of Moral Philosophy had been appointed for the 18th of June.

Professor Roscoe will next Saturday commence a course of six lectures on spectrum analysis and its applications, at the Apothecaries' Hall, London. The lectures are to be continued each succeeding Saturday, at two P.M.

In consequence of a rifle corps having a prior claim, and unexpectedly wanting the Beaufort-house grounds on the day fixed for the medical students' athletic sports, as announced in our last, these latter will be postponed to the 11th and 12th of June.

The Jacksonian prize on the "Injuries and Diseases of the Jaws" has been conferred on Mr. C. Heath, of University College. The prize on the "Deformities resulting from Burns" was obtained by Mr. W. Johnson Smith. The triennial anatomical prize of the English College of Surgeons has not been awarded.

Dr. John Harley has resigned his lectureship at King's College. No wonder, after the treatment we have described.

The London Hospital dinner is to be held at the City Terminus Hotel, on the 6th of May, when the Right Hon. W. E. Gladstone is to occupy the chair.

The St. Thomas's Hospital old students' biennial dinner is fixed for the 21st of May, at the City Terminus Hotel. Dr. Barker is to take the chair.

The Statham Defence Fund is closed. It amounts to more than £300. To-morrow evening a meeting of the Committee is to be held, to arrange for paying over the proceeds to Mr. Statham.

Oxford is making a move in natural science. Four scholarships have been filled up in a single college. This is a step which is likely to be followed by others in the same way, and cannot fail to confer credit on Oxford.

A sum of £300 has been raised as a memorial to the late Dr. John Dickinson, who died in Africa when accompanying Bishop Mackenzie's mission. The interest is to be applied to a scholarship in the Newcastle College of Medicine where Dr. Dickinson was educated.

The papers relating to the Walsall Workhouse were to be had last Friday.

If the telegraphic information respecting the character of the injury received by his Royal Highness the Duke of Edinburgh can be depended on, the nation has to be thankful that the life of the Prince has been saved by one of the most extraordinary escapes which has ever been recorded in the history of gunshot wounds. If the ball which, we are told, entered the back half an inch from the spine, and in a downward direction, had taken the course which in nine hundred and ninety-nine cases out of every thousand it would have taken, it could not have failed to pierce the heart and great vessels, the lung, diaphragm, and intestines, or liver, such an injury to any of these viscera being almost certainly fatal. That it should have traversed a distance of twelve and a-half inches on the outside of the ninth rib, and lodged under the skin of the abdomen, without even touching the peritoneum, is all but incredible, and the fact, if true, will add another to the few extraordinary cases in which balls have glanced from their natural direction and taken a totally unexpected course. Cases are on record in which a ball entering the hip came out at the heel, where it entered the temple and passing over the bones of the head lodged at the opposite side. Mr. Lawson narrates a case in which a grain of shot striking the eye, passed from side to side under the conjunctiva; and a case was communicated to the Surgica Society of Ireland about a year ago, in which a bullet was removed from the heart of a man who received it in the battle of Salamanca thirty-three years previously.

Proceedings of Societies.

MEDICO-POLITICAL ASSOCIATION.

What may be called a mass meeting of the profession in the Midland Counties was held in Birmingham on the 17th inst. The meeting was called by the Medico-Political Association, and the chair was occupied by the President Dr. Davey. Nearly 100 new members were enrolled, so that the Midland Counties may be said to have taken up the movement most warmly, and from what transpired, it is clear that henceforth Birmingham will throw the whole weight of its influence into this Association, the objects of which are, as we have previously explained, to obtain the representation of the registered practitioner in the council, reduce the abuse of medical charities

and otherwise forward, as far as possible, every scheme for the improvement of the condition of the profession generally. The following report is a full abstract of these important proceedings :—

Mr. MACPHERSON, Local Secretary of the Association for Birmingham, said that, in the first place, 500 circulars were issued by post to the members of the profession practising in this and the neighbouring towns. To these circulars many gentlemen responded at once, by forwarding their subscriptions and enrolling themselves as members of the association. About ten days since a further issue of circulars was made. In these circulars a modification of the programme of the association was made, with a view to meet the objections of a large and influential section of the profession. The modification referred to was this : For the words "Annihilation of unpaid and underpaid hospital medical labour," the following paragraph was substituted—"A modification of the present hospital system as regards its relations to the medical profession, which relations at present press unjustly upon the general practitioners of the kingdom, not only through the abuse of medical charities by the public, but also by a universal acceptation of a principle of entirely unpaid medical labour." No sooner was this change in the programme made, than many gentlemen who had previously held aloof at once expressed their warmest sympathy with the objects of the association, and gave proof of their sympathy by becoming members of it. We have now, in this district, 85 medical practitioners who have enrolled themselves as members of the Medico-Political Association. It is little more than six weeks since the first circulars were issued, at which time few medical men in Birmingham were aware of the existence of the association—a conclusive proof that it supplies a want that has been deeply felt by the profession at large.

The PRESIDENT said they had had, as they might be aware, three meetings before that one: the first was held at Bristol, the second at Brighton, and the third, only a few days ago, at Shepton Mallet, in Somerset; and so far as they had gone they were assured that a medical political association was really needed by the profession. He believed nowhere would the expression in favour of the association be louder or more emphatic than in the great central metropolis of Birmingham. They had heard that a large number of gentlemen had already joined the association, and he had no doubt that the Birmingham physicians and surgeons would be followed by the members of the profession in other large towns up and down the country. They were desirous of promoting the interests of the profession at large, and they were desirous at the same time of promoting the public interest. They did not in any way wish to dissociate the two interests, for they believed the interests of both were bound up together. Looking at the advertisement, as it appeared in the daily papers, they would be informed of the nature and the objects of the association. The first point which doubtless struck their attention was "the representation of the registered practitioner in the Medical Council." They were quite as well aware as he was that the registered practitioner was not up to this time represented in the Medical Council. This was a state of things that could not be continued. If such a state of things did continue they were responsible for it, and they only deserved the neglect shown them. He had a higher opinion of them. If they deserved to be represented, they would insist upon being represented. They knew very well that the Medical Council, as at present constituted, represented simply the licensing bodies of the universities and the colleges. The registered practitioner was left out in the shade. This must not be, and this was one of the principle objects which they had in view. He trusted they would be able to remove so objectionable a barrier, for until the medical practitioner be represented on the Medical Council there was no hope for him. It was upon this ground, among others, that he more especially asked their support for the Medico-Political Association. Now there was a very unpleasant thing to allude to in connection with this, and that was the excessive competition that obtained in the medical profession. Let them trace this to its first cause, and he believed they would find that it arose out of the large number of licensing bodies. There were as many as nineteen licensing bodies in the profession, and what was the result? They must obtain funds somewhere, and how else could they obtain those funds but from the division of licenses to practise. A large number of young men were encouraged to go to these licensing bodies, and thus they were transmitted to the paths of the profession, and hence it was that the numbers increased so largely as they all witnessed. The result was that a large amount of unpaid and underpaid medical labour was brought into existence ; and if they went back to the first cause it would be found to exist in the large number of licensing bodies. Now, he conceived that it would be a very desirable thing, if practicable, to reduce the number of those licensing bodies, and this was one of the things they should strive for. With regard to this question of unpaid and underpaid medical labour, he said he believed the example which had been set by the members of the profession in Birmingham recently would result not only in a benefit to the profession at large, but in a gain to the public at large. They did not intend to put themselves in antagonism with the people. He would not lend himself to any means whereby the people would be deprived of the necessary amount of medical and surgical assistance. But as they were quite aware there was nothing so much abused as medical charity. They were all cognizant of the fact that a large number of persons applied at their dispensaries and their hospitals, who were not proper persons for charity. It was not at all to be supposed that medical men would submit to such a state of things. Dear me, exclaimed the President, medical men had to support themselves as well as other people! They depended on their labour as did the architect, the baker, or the butcher. They knew that in the profession there was a good deal of poverty. Those who were in the profession saw these things day by day, and they knew that the labour which was performed gratuitously for those who did not deserve it, could be discharged by the younger members of the profession. Nevertheless he hoped and believed medical men would ever be found foremost in all cases of charity, doing good where they could. What was wanted was "education ;" the people must be "educated" up to this point that they must not look for doctors to work for nothing. In his opinion, people only wanted educating up to this point. The acquirement of their knowledge as medical men was not all ; they required a great deal more to discharge their duties properly as medical men. He had an idea that the dispensaries might be properly divided into poor-law dispensaries and provident dispensaries, and he had also an idea that infirmaries and hospitals might be similarly divided. He then glanced at the proposed establishment in London of metropolitan poor-law dispensaries, and said they knew very well that they were building several large hospitals in connection with the Poor-law administration, with 500 and 600 beds in each. The carrying on of these hospitals would be undertaken by the Poor-law surgeons. A very good arrangement this would be. The statistics of the village hospitals showed the great amount of talent there was scattered over the country—talent which had never yet been brought to the surface under the pressure of circumstances. Then there was another point that struck him : if funds could be raised to support our large county and borough asylums, surely there could be no difficulty on the part of the counties and boroughs in supporting hospitals? They only wanted these things, which pressed upon the profession, modified to meet the necessities of the times. And what was another thing, the resident staff of public institutions of this kind should be larger than they were at present considered necessary. Gentlemen connected with hospitals knew very well that in consequence of the pressure upon their time by having to pass 60, 70, or may be 80 cases through their hands, it simply amounted to going in at one door and out at the other. He conceived that this was not quite what should be. He had been an hospital surgeon, and he would say that he was obliged to get rid of persons so quickly that he was not satisfied after he had passed them by. Well, this was a difficulty that was to be got rid of by an increase of the medical staff. He next referred to the Colleges of Physicians and Surgeons in Pall-Mall and Lincoln's-Inn respectively. He considered that these institutions were based upon an entirely erroneous principle : they were based on principles which obtained 350 and 400 years ago ; in fact, they were oligarchies, societies of men governed by the few to the exclusion of the many. This was not as it ought to be. If these institutions were governed upon a right principle, there would be no reason to refer to the objectionable condition of things that obtain in their profession. They might depend upon it, the College of Physicians never would alter its manners until the outsiders told the small clique that governed it that they would stand such a state of things no longer. He had been a member of the College of Physicians and Surgeons pretty nearly for thirty years, but he never had a voice in the government, and the clique would be surprised if he entered his protest against anything they decided to do. They would look upon him as a most rude and impertinent person. This

was a state of things which must be altered, and he called upon the portion of the profession he addressed to do all in their power to bring about a long-needed and a just reform.

Mr. OAKES moved the first resolution—"That this meeting pledges itself to use its best endeavours to rescue the registered practitioner from his present anomalous position with respect to the Medical Council, and to secure him a full and fair representation therein." He had great satisfaction in proposing the resolution, because he believed the general practitioners were at present suffering a serious grievance in their non-representation at the Medical Council. They had no voice in their own legislature or in the council: in fact, they had nothing which connected them with the State authorities.

Dr. LESLIE seconded the resolution, which was carried unanimously.

Mr. GAMGEE said when favoured by the executive of the association with a request that he might take some part in the movement of that day, he had very slowly given in his adhesion to the society to become one of its members, because he felt that, overworked as most of them were, he must not lightly engage in new undertakings. On looking at the programme of the association he found nothing in it that he substantially objected to; but he found that it was too one-sided to those who were taking a part in it. They complained of a grievance, and no doubt they had a perfect right to do so, and no doubt, moreover, there were grievances to complain of. But he, no more than any other man, liked a grievance-monger; and as he considered that the other side of the question was not sufficiently taken into consideration, he asked the executive to relieve him. He found, however, that those gentlemen who made out the programme intended it to be merely suggestive; that they were open to receive any modification that might be made; and that the programme had been drawn up in the view simply of eliciting, in the first place, a discussion. He therefore ventured to suggest that the third resolution—the third branch of the programme—should be modified; and, with their permission, he would read them what he suggested in its place. He suggested a resolution to this effect: "That the present hospital system requires revision in the interests of the people and the medical profession." The executive thought that that resolution was an improvement upon the previous one, and they thought that he might be doing good by proposing it. He had therefore much pleasure in moving it. When, last summer, Dr. Heslop, at the annual meeting of the British Medical Association, raised the question of the remuneration of medical officers, in a speech which for lucidity, comprehensiveness, power, close reasoning, and, at the same time, temperance of expression, could not be excelled; he (Mr. Gamgee) ventured to express an opinion that Dr. Heslop and his friends were beginning at the wrong end. He did not believe they could reform, say the legal profession, by inquiring into the conditions and the difficulties of attorneys' business. They must look at the higher courts—at the men in what were conventionally called the "higher walks of the profession." However well he understood this, they were all so much taken away by the tide of success that he threw himself into the movement, believing that the great thing was to begin. He believed that the matter had been exceedingly well conducted, and though he had only had the honour of partially taking action, he was willing to take the responsibility of the whole body. He had taken action with a part of it; he said he espoused the whole of what had been done. But he could not shut his eyes to the fact that though he knew that his friends wished well, the susceptibilities of the public had been awakened in the discussion. The people thought it rather strange that they should come forward, after so many years' silence, with a grievance which found a desire for more remuneration. They had a great deal to say for themselves, but not for the people. Personally, he thought that this was to some extent a wrong notion, but the profession was responsible to a great degree for the feeling which existed in the minds of the people. He believed that some classes of the profession more than others were responsible. He had the strongest conviction that the judgment of the mass of mankind—if it only had time for its expression, and if it only had clear reasons—was on the side of right; and if for a moment the people thought that the medical practitioners were in reality too selfish in espousing the cause of the club surgeons, this must not cause any great feeling of surprise. He thought when the plain facts were before the public, they would see that it was not a narrow policy they entered upon, that it was not a narrow view that they took of the matter, and that the partial disclosures which had been made had simply arisen from the impracticability of laying the whole of the case before the people at once. Indeed, the grievance was a great one to the club surgeons. and also to the people. The former were imperfectly paid by the people, and the latter were imperfectly served. Nobody understood this better than the people themselves, for if they asked for an article which cost £10, and insisted on only paying £7 for it, in the long run they would only succeed in getting value for the smaller amount. The time for a change had come, and he believed that there was a great central cause of the evil which existed, and that was the hospital administration of the country. He then gave a sketch of the history of hospitals, tracing the rise of clinical surgery, and remarked that it was extraordinary to notice how very recently hospitals, as at present understood, had taken up a position. Hospitals, as places for clinical instruction, only dated from the latter part of the last century; so that a complete century had not passed since they had become schools of clinical instruction. He glanced incidentally at several of the great medical and surgical reformers, some of whom had the energy of a Robespiere, and the indomitable will of a Cromwell. He next referred to the evils of hospital management, prefacing what he had to say with the remark that he did not profess to speak of all the hospitals of the country. There was a very great difference. The remarks he made applied especially to the case of Birmingham. There were two classes of hospital surgeons. In London the work was almost wholly done by honorary officers, *e.g.*, the resident house-surgeons were unpaid. In Birmingham it had been found that this was impracticable, and the house-surgeon was paid a salary. The appointment of these officers rested mainly in the committee and the medical officers; and he must say that he considered the appointments in the men were excellent ones. But as soon as the young men became appointed to those hospitals they aspired to become honorary physicians. They were elected in consequence of their scientific merit, and on their promise as young men, and they came there to work in the interest of science, and as supplementary to the honorary medical officers. If they aspired to higher positions they must be prepared with a machinery like that required at a Parliamentary election, to pay £500 down certain, that it may be supplemented with another sum almost as large; their scientific research would not be inquired into—the great question was, what were the opinions of the Governors and the subscribers, and how might they be conciliated? What a damper this was to the zeal and energy of a young man, to make him at once a Conservative and a trickster in his early days. He then referred to the amount of work thrown on hospital surgeons, some of whom had to dispose of from 80 to 120 an hour. Now, was there anything in medicine? Did these people require any attention at all? If they did not, tell them so; if they did, do not profess to dispose of them at the rate of one hundred an hour. The profession laboured under a great disadvantage because of its being a secret profession, and this had more force in the provinces than in London. He contended that practitioners should be admitted to do work in the hospitals, which was at present neglected, and he then entered into a narrative of his experience at the University College Hospital and the Royal Free Hospital, from which it appeared that very frequently those who were no objects of charity applied for and obtained that medical assistance which they were well able to pay for. He strongly condemned this system, and advised that steps for a reform in regard to it should be carefully considered. He approved of the principle of competition in the profession, on the ground that it relegated to obscurity the incompetent. Having said so much on general matters, he asked to be allowed to say something for himself. He spoke of his own connection with the hospital, and said that if he were acquainted with anyone who intended becoming a candidate for a Birmingham surgeoncy, he would ask him of the amount of his ability, and his temper. If he found that these were super-excellent, he would still not encourage him through the contest; he would ask him if his nature was made of cast-iron, and if he assured him that it was, he would then dissuade him from the contest, for cast-iron was brittle, and broke under blows. If he elicited from him that he was made from Bessemer steel, he would allow him to enter the tremendous contest, for he believed nothing else could come safely out of the process. He concluded by moving the resolution.

Mr. YATES seconded the motion.

Dr. BELL FLETCHER spoke in favour of the resolution. He said that there were abuses in their institutions was to a certain amount correct, but as an hospital physician of some

experience, he wished to say that those abuses which had been spoken of were exceptional.

The resolution was carried unanimously.

Mr. Baxter Langley then moved—"That in the opinion of this meeting the present low scale of remuneration of the Poor-law medical servants, while unjust to the medical profession, is injurious to the welfare of the sick poor."

Dr. Bell Fletcher seconded the resolution. He said he believed a great evil existed in the quarter pointed at in the resolution, and he should be glad to aid in bringing about a reform.

After a few words from Dr. Robinson, the resolution was carried, and a vote of thanks to the Chairman terminated the meeting.

MEDICAL SOCIETY OF LONDON.

April 13th, 1868.

Dr. Richardson, F.R.S., President, in the Chair.

Eleven new fellows were elected, and six new candidates proposed for election. Dr. Prosser James and Mr. Haviland were formally admitted by the President.

It was announced to the meeting that the council recommended that members of the profession resident in the provinces should be eligible for the Fellowship of the Society under the usual regulations, but on payment of the entrance fee only—the annual subscription becoming due in case of such fellow changing his residence to the area of the Metropolitan Postal district.

Mr. Francis Mason exhibited for Mr. Pratt, of Oxford-street, an artificial arm, of very ingenious construction and of moderate price, as briefly described in the last number of this journal.

Mr. Henry Lee showed the spinal cord just removed from the body of a patient, whose case was noticed at the last meeting. There existed fracture of the fifth cervical vertebra and extensive laceration of the corresponding portion of the cord, the symptoms were almost identical with those noticed in a case which occurred the very same day, in which the interior of the chora only was found bruised; but in this case there had been a herpetic eruption of the lips. The first patient, with internal disorganisation only, lived three days; the second, with fracture and laceration, seventeen days, breathing only by the diaphragm.

Mr. Bryant alluded to the question of duration of life in such cases. After a series of investigations, he came to the conclusion that when respiration became purely diaphragmatic, it was quite exceptional for a patient to live more than three or four days.

In explanation of a remark by Dr. Day, Mr. Lee said that he considered the herpetic eruption possibly due to some absorption from the fractured cancellous structure of the bone.

Mr. Hunt drew attention to the use of nitrous oxide as an anæsthetic, which had been suddenly urged upon the profession.

The President considered that nitrous oxide was no true anæsthetic, but an asphyxiating agent. It does not diffuse into the blood, but prevents the normal oxygenations; its action upon animals is rapidly fatal. It cannot be otherwise than a dangerous agent, and its employment a retrogression in science.

Mr. Henry Lee asked why those agents which merely prevent or withhold oxygenation, can of themselves prove fatal?

Dr. Sansom greatly agreed with the President; nitrous oxide had been formerly tried and found wanting, it was an asphyxiating agent, and no asphyxiating agent can be a mere negative, for whenever there is a deficient oxygenation of blood, there is always accumulation of the products of disintegration, which are in themselves deadly poisons. Nitrous oxide is greatly inferior to chloroform, both as to its manageability and its prospects of safety.

Dr. Broadbent having postponed to a future meeting the discussion on his exceptions to the propositions on Force,

Mr. Thomas Bryant read the first paper of the evening—"On some cases of inflammation of the breast simulating cancer." The author related ten cases in which many of the local symptoms could have led to a wrong diagnosis, had the surgeon failed to inquire into the previous history and causation of the signs observed. In some the retracted nipple had been congenital, in others adherence or puckering of the skin over the breast was the result of a previous abscess. The value of an exploring puncture in doubtful cases was illustrative. Nearly every local sign of cancer may be simulated by some simple affection, and it is only by careful attention to small points that a true diagnosis may be made.

Mr. Francis Mason had known instances of subgrowths from the perichondrium or periostium of the ribs, which simulated the appearance of cancer.

Mr. Henry Lee said it was important in all cases to distinguish between real retraction of the nipple, and encroachment of the neighbouring structures thereupon.

Mr. Spencer Watson related a case in which some signs indicated cancer, others abscess; there was even on the surface of the tumour a spot which plainly gave fluctuation of subjacent pus: yet the breast having been removed, the centre of the tumour was found to be decidedly cancerous.

Mr. Hunt and Dr. Gibson also took part in the discussion, and related instances of difficult diagnosis.

In his reply, the author explained the mechanism of retracted nipples, it is merely the result of the reparation of the milk-ducts by an exudation occurring between them.

Owing to the lateness of the hour, the paper on "Hospitals," by Dr. Oppert, which had been announced, was postponed till the next meeting.

SURGICAL SOCIETY OF IRELAND.

27th March, 1868.

Mr. Porter, Vice-President of the College, in the Chair.

FRACTURE OF BASE OF SKULL.

Professor Morgan exhibited the skull and lower-jaw of a man, who jumped out of a window on the previous Saturday morning, fell from a height of 55 feet, and died on Monday evening, from the injuries he had received. He was brought into hospital immediately after the occurrence of the accident, and seemed to have, not so much symptoms of compression, as symptoms of inflammation of the brain. They were somewhat puzzled at first by the case. The man had fracture of the anterior part of the base of the skull, running down from the ethmoid bone—the nasal bones and the ethmoid bones were broken into several fragments. On opening the skull the first thing that struck them was, that it was a remarkably thin one. The naturally thin portions were as thin as paper. The dura mater was found to be adherent to the skull, and when it was raised, there was a large quantity of pus found underneath it. The pus was chiefly on the upper part of the anterior lobes; there was comparatively little on the lower part. The point of interest in this case was, whether the pus was the result of the injuries, or the result of the previous inflammation that led the man to take the dangerous leap. The only information received of the history of the case was, that the man had been under the care of Mr. Colles, in Steevens' Hospital, up to Thursday week last, when he was removed to his own home. On Thursday he was somewhat excited; on Friday he was delirious, so much so that his friends watched him. On Saturday morning, when their attention was momentarily relaxed, he suddenly rushed to the window, leaned over the sash, and came out. It was supposed he fell on the signboard, and was then thrown forward on his face on the flagway. The question, as he had already observed, was whether the pus on the upper surface of the brain was the result of the previous inflammation, or had been caused by the injuries received by the fall. When they raised up the anterior lobes and examined them, there seemed to have been a loss of substance, probably caused by a bulging of the ethmoid. The pus was of that greenish colour seen in those cases of cerebro-spinal meningitis, with which they were latterly so familiar. There were some adhesions between the dura mater and the surface of the brain. There was no localized abscess that he could detect, but he had not opened the brain, not wishing to spoil the specimen. At the same time the man got fracture of the lower jaw. It was a specimen of fracture just at the symphysis, in an adult, the man being 40 years of age. He had extensive ecchymosis and swelling of the eyelids. He was not, strictly speaking, insensible. His surface was warm, and he had no signs of compression of the brain.

GENERAL EMPHYSEMA FROM RUPTURED LUNG.

By E. D. Mapother.

Surgeon to St. Vincent's Hospital, &c.

I propose to relate briefly the following case of emphysema from ruptured lung, and then to comment on the circumstances which conduce to that pathological occurrence. On the 29th of February, Eliza Farrell, aged two years, a healthy child,

had a fall, her chin coming against a stool. No local injury resulted, but the child being greatly frightened, seemed to cease breathing for a moment or two, and then screamed violently. When the mother took her up she perceived a swelling above each collar-bone, which gradually spread to the surface of the chest, neck, and eyelids. When admitted into St. Vincent's Hospital, 36 hours after, these parts were tensely emphysematous; there was neither fractured rib nor clavicle, nor any other injury, the skin of the chin, where it was said the blow was received, not being ecchymosed. There was no difficulty of breathing or cough. I conceived that a forcible inspiration occurred after the fall, and that the air-cells near the root of the lungs being thus distended, were burst by the sobbing and crying movements, which are expirations with the glottis closed. The air was then pumped into the posterior mediastinum, and thence towards the skin. In anticipation of pulmonary inflammation, I gave a little grey powder, and to lessen expiratory force and prevent further inflation of the areolar tissue, I put a bandage round the chest. The air gradually passed away, and on the seventh day after the accident, the child was in perfect health.

The following points seem worth discussing:—

1st. The rupturing force has been the retarded expiration in cases of whooping-cough, foreign bodies in bronchi, a sudden cry or laugh, loud speaking (as occurred in the case of a barrister while pleading), primiparous labour, hysteria, and during the reduction of a dislocated humerus. In all such instances there is a full inspiration, and the expiratory movements are most forcible, but the exit of air is not free. Rupture of air-cells usually occurs in the difficult expirations of animals in whom the pneumogastric nerves are cut, the laryngeal muscles becoming so flaccid that the arytenoid cartilages fall together, and it is probable that in whooping-cough (which is the most frequent cause of this kind of emphysema) these nerves are functionally disordered.

2nd. The air-cells near the root alone rupture, because elsewhere the lung is firmly enveloped in pleura, and the elastic subpleural layer described by Stokes. In the bladder the serous part is far more apt to burst than the non-serous. The funnel shape of the terminations of the bronchi tends to confine the air, and the air-cells at the very end more readily give way, as those along the sides are supported by other infundibula. During violent expirations, as we see during a fit of coughing, the lungs yield most at their upper part, bulging outwards above and below the collar-bones, but this is the part of the organ least accustomed to distension in ordinary breathing. There is no compression offered by the spine, for it is fixed, nor by the cervico-thoracic septum, for, notwithstanding the expansion it gets from the anterior scalenus it is yielding. The right lung would probably give way more easily, as its root is higher up, and the liver firmly resists below, but more than two-thirds of the pleural ruptures in cases of pneumo-thorax have been on the left.

3rd. Out of 38 such recorded cases which I have analysed, 34 were in children under four years. At that period the average weight of both lungs is seven ounces, whereas it is six times as much in the adult. These organs rapidly expand from their fœtal state, so that the air-cells, which are about 1-250th of an inch at birth, are soon twice that size, their walls being softer and thinner than in the adult. The upper part of the chest in children undergoes the most vigorous movements, and, considering the need for abundant aëration, the respiratory force is several times more powerful in proportion to weight and height than in the adult. In the child the interlobular areolar tissue is extremely fine, and there is little fat in the posterior mediastinum, and the air easily makes its way to the subcutaneous layer, but there from the abundant fat it meets resistance, and the emphysema is rarely very extensive. For the above reasons it is easy to burst the infant lung, and insufflation is said to be an occasional mode of infanticide in France. When removed from the chest the lungs bear a much greater expanding force without rupturing, as there is not unequal resistance. Children more frequently cry violently, and are more subject to spasmodic cough than adults, and hence again their greater proneness to this form of emphysema. Whooping-cough is the most frequent cause, and Mr. Richardson has given us an opportunity this evening of examining both a dried and a microscopic specimen of interlobular emphysema so produced. As that epidemic has been most prevalent during the past year, some of our members may have met with this complication.

4th. General emphysema is to be explained only by a rupture of some hollow viscus, for the inflation of the areolar tissue with gases evolved by decomposition has not been proved, on reliable evidence, to extend beyond the gangrenous part. Inspector-General Monat, in 1839, reported a case of rapid gangrene in India, in which two hours after death emphysema became general, but decomposition in that climate is ten times as fast as in this. The gases which are emitted by putrefaction are inflammable, as may be tested by puncturing the skin of a corpse which has been for many days floating in water, and if they were generated during life one might believe even in spontaneous combustion.

While the serum which moistens the areolar tissue, or that poured out into the pleura in hydro-thorax could only emit gases by decomposition, the blood which had them dissolved may possibly do so.

Dr. Graves recorded a unique case of emphysema after excessive bleeding, in which the air seemed to escape from the blood, owing to diminished pressure, and then to permeate the areolar tissue of the body. With this exception, I can find no instance of general emphysema in which there was not evidence of rupture of the respiratory or digestive passages, on both of which the expiratory movements would act so as to express the air or intestinal flatus.

A case is recorded by Holmes, in which, after rectal puncture of the bladder, flatus was diffused through the areolar tissue as far as the surface of the chest, and Haller observed general emphysema to result from meteorismus, the intestine giving way as far as the subserous coat into which the air was forced. The latter occurrence has been often observed in cattle when the paunch has been over-distended by flatulent food.

William Hunter notes that general emphysema was frequent in the cattle plague of last century, and it occurred in half the cases of the late epidemic, more especially in young animals. It is due to the sudden and violent groaning expirations of the creature bursting the lung, the due exit of air being obstructed by the swelling of the tracheal and laryngeal membranes. In the ox the interlobular areolar tissue is very loose, hence the great effusion of lymph which results in pleuro-pneumonia, while the sub-pleural elastic layer is very strong—anatomical reasons which account for the occurrence of interlobular instead of vesicular emphysema in that animal. Mr. Ferguson lately asked me to witness a post-mortem on a horse which had died with universal emphysema, due, it was thought, to some septic condition, for the occurrence of any injury was denied. However, it was found that a rib had been broken, probably by a kick from a brutal groom.

In the pathological part of my Student's Manual I have inserted a woodcut of a case which was recorded as one of spontaneous effusion of air, but I believe it to have been similar to the one now detailed.

Authors talk of the secretion of air into the peritoneum, into the stomach, and into the womb; as regards the first we have no proof that air ever distends that sac, and it is more probable that the stomach becomes inflated by fermentation of food, and the womb by suction of air through the vagina. Surgical writers have appealed to the swimming bladder of fishes as a sac into which air is secreted, but they forgot that that organ always communicates at some period of life with the alimentary canal.

Emphysema from ruptured lung has proved occasionally fatal, and in such cases the mediastinum has been found so greatly distended, and so much air effused under the pulmonary pleura, that apnœa should result.

Lastly, as to treatment. Puncturing the skin and bandaging the chest are the surgical steps which seem advisable in cases in which respiration is impeded. William Hunter first advised puncturing the skin, having learned its efficacy in cases of cattle plague. The mediastinum and interlobular spaces must be relieved accordingly as the air fizzes through the punctures, and the free passage of air, which has been rendered less irritating by being respired, produces no ill effect upon the areolar tissue.

A bandage round the chest is useful in lessening the expiratory force, but if there was much compression of the lung previously, it would be unendurable.

In such cases the sac of the pleura does not contain air. Halliday records a case in which a vomica burst both into the mediastinum and left lung, immense subcutaneous emphysema resulting. The dyspnœa was so great that it was resolved to tap the chest, but the emphysema prevented the surgeon from making sure on which side the pneumo-thorax was. The sound side was chanced on, and the patient was suffocated in a few minutes from collapse of both lungs.

It was Hewson who first asserted that pneumo-thorax and

compression of the lung must precede the escape of air into the subcutaneous areolar tissue in cases of fractured rib. Professor Porter, in his lectures in this college in 1839, advanced another theory, which, although I believe the correct one, has not attracted attention. He argued that emphysema only occurred in cases where adhesions between the pleural surfaces had kept the wound in the lung and the wound in the chest in correspondence. In rabbits or dogs with healthy lungs Hewson was never able to produce emphysema by any kind of wound. Many cases of wounds of the lung from broken rib are not attended by emphysema, because the required adhesions are not present, and such cases are not followed by great difficulty of breathing, nor invariably by death, as they would be if pneumo-thorax was a necessary part of the case.

The question is most important, for if there be air in the pleural sac producing dyspnœa, it should be removed with a trocar and canula, a long tube and stop-cock being adopted to the latter to prevent admission of air. The external wound will be readily closed with sutures and collodion, and as wounds of the lung heal rapidly, air will not be again expressed into the pleural sac. The quantity of air the pleura will contain is surprising. Dr. John Davy removed by tapping the right pleura of a young soldier, 225 cubic inches of gas, 92 per cent. of which was nitrogen, and 8 carbonic acid, the oxygen having been removed by respiration.

In cases of fractured rib, especially if the lung be torn, it would be very desirable to compress the injured side, and yet leave the sound side free. I think this might be done by rolling the bandage round the arm of the sound side, the limb being kept out from the ribs by large pads placed between the elbow and the ilium. The bandage might be also carried from the ribs of the injured side round the neck and shoulder and pelvis of the opposite side, which would leave the ribs free to move. The ribs would be then raised and everted by the muscles on the side which was not compressed by the bandage. Placing the patient on the injured side tends to the same end.

I understand that Mr. Macnamara has lately met with two cases similar to that I have recorded, and I trust he will relate them to the society.

The CHAIRMAN was sure the meeting would agree with him in thinking Professor Mapother's paper a most interesting one, not only interesting in respect to the affection itself, but as regards the treatment.

Professor MACNAMARA said he had had a couple of cases recently, of the character of the cases which Professor Mapother had brought before them. One of them was the case of a little child, three years of age, who had fallen down a flight of stairs, and was brought to the Meath Hospital, presenting an emphysematous appearance, such as Professor Mapother had described. It was also on the left side, and on making inquiry from the resident pupil he was told that it appeared immediately at the upper portion of the left side of the clavicle, and from that he at once predicted that there was no fracture. On careful examination of the little patient, this proved to be perfectly correct. It was exactly the form of injury Dr. Mapother had so well described, caused by the child holding its breath on falling, and then screaming and rupturing the air-cells. He had no trouble with the case—the patient getting rapidly better. As to the mode of bandaging when the injury was caused by fracture of the ribs, he was in the habit of treating the case differently from the mode mentioned by Dr. Mapother. He used broad bands of sticking-plaster, extending from the spine posteriorly to the centre of the chest anteriorly, securing the ribs on one side perfectly and having the ribs on the other side quite free. He had been exceedingly satisfied with this treatment and he had induced the pupils at the hospital to adopt it in all cases of the kind which came under their care. They had informed him that the result was most satisfactory. He did not take the slightest credit for originality in adopting this treatment. He did not know by whom it was first suggested. About a couple of years ago, he had the honour of being consulted by letter, as to a very curious and rare case of emphysema occurring during delivery; and it so happened that Dr. Pratt, the gentleman by whom he was consulted, was present that evening, and if he mentioned the particulars of the case he was sure it would interest the society greatly.

Dr. PRATT said that if he had had the slightest notion that the subject of emphysema would be brought forward that evening, he would have brought with him the notes of the case referred to by Professor Macnamara. He was called on to attend a farmer's wife, a handsome, strong, healthy, young woman, 26 years of age. The labour was not a very tedious one. He saw her about the second stage of the labour. As it progressed she complained of difficult breathing, which astonished him greatly. She said, "doctor I am getting worse;" and he perceived that her chest was puffed out like a bladder—the swelling went up to the neck, stopped along the margin of the chin, and the back of the neck. Her body was swollen in a like manner. The child was born, and then she said she felt better, which was to be expected, as she obtained more breathing room. This was the case about which he had consulted Dr. Macnamara. The only treatment he had recourse to was, along with the usual bandages, to get the ordinary stays, worn by women, and lace them tightly from above downwards. She got well in four or five days. She had three children since without a recurrence of emphysema. The libraries in the country did not afford much facility for examining into the records of medical cases; but he had since ascertained that cases of this kind are mentioned in Copeland's Dictionary.

Dr. FLEMING observed that, as they were all aware, many cases occurred in which it was impossible to tolerate the presence of any bandage, no matter how applied. As to the special application of the strapping referred to, he had used it, and it was especially recommended by Mr. Hilton in his lectures, and he at first thought it was adopted at his (Mr. Hilton's) suggestion. He understood, however, it was alluded to in the translation of Malgaine's work, introduced probably by the translator, as it was not in the original French. The occurrence of emphysema was familiar to every surgeon, and also emphysema complicated with pneumo-thorax. He would say, as regards the use of the bandage, that he would be influenced by the effect produced on the patient as regards relieving pain or respiration, should dyspnœa exist. As to the application of strapping, he had found it most satisfactory in every case in which he had had recourse to it.

Mr. H. G. CROLY said that eight or nine years ago he read a paper on the rupture of the urinary bladder, which took place in the City of Dublin Hospital, when he was its house-surgeon, and Mr. Tufnell kindly allowed him to show the specimen. There was fracture of the pelvis, fracture of the pubis, and well-marked emphysematous crackling in the abdomen. The late Professor Power thought that the emphysema must have arisen from the entrance of the air into the catheter, while others thought it must have been due to the decomposition of the blood. He (Mr. Croly) never adopted any other plan than that of strapping the side with broad bands of sticking-plaster, and it appeared to answer much better than the ordinary bandage.

Mr. RICHARDSON said the specimen under the microscope and that in the jar, alluded to by Dr. Mapother, were taken from the lung of a child, two years and a-half old, who died in the South Union Workhouse some years ago; the emphysema occurred during a violent fit of whooping-cough. The air-cells are much dilated in both the microscopic and the dry, specimens. The microscopic section is stained with carmine to render its structure more visible.

Dr. H. KENNEDY said he had seen one instance of spontaneous emphysema in the adult. The patient was a lunatic, and all that was known about him was, that he had wasted very much. In this state emphysema suddenly appeared, and spread over the whole body, except the scalp, palms of the hands, and soles of the feet. The patient died, and on examination a mass of disease, of the strumous character, was found in the posterior mediastinum. At one part an abscess had formed, which seemed to communicate with the root of the left lung; and, in this way, the emphysema had formed. Before sitting down, Dr. K. wished to allude to a point incidently spoken of by Professor Mapother. He meant the use of the common grey powder, the mercury with chalk. On two occasions, in which he had lately used it with children, the effects were very severe; and yet the dose was only a grain, which, however, caused very severe and instantaneous vomiting. On referring to his friends, Drs. Grimshaw and Reynolds, he was told that, in the preparation of the medicine, an active salt of mercury was frequently formed. Besides this, he had read that arsenic was occasionally found in it. Dr. K. thought the point one of moment, and worth bringing before the Society.

Professor HARGRAVE observed that there must have been some idiosyncrasy in the case mentioned by Dr. Kennedy to render the use of the grey powder so irritating. He himself knew two families, none of the members of which could bear the hydcum creta. He had to change from that to the mercury with magnesia, which agreed with these two families in the most satisfactory and effective manner. This was well-known by the families, and when another doctor was called in,

they informed him of the peculiarity. As to the use of bandages, he was not aware that strapping for fractures of the ribs was first used by Mr. Hilton. As far as his information went, it was first tried in the Crimea, and some very practical papers had appeared in the Scottish journals in reference to this and other subjects by Mr. M'Leod. Very few patients could bear the circular bandage, and the principle of this improved method was the laying on of the plaster diagonally. It was a most valuable improvement on the treatment of fractured ribs. He was told there was an unfortunate practice prevailing in the army department, by which these gentlemen were not allowed to publish anything until they submitted it to the authorities, and he thought the authorities were greatly in error in placing such restrictions on the communication of information calculated to advance medical and surgical science.

Professor MAPOTHER said Dr. Kennedy's observations reminded him that he should have stated that in Dr. Mouatt's case, the emphysema was chiefly remarked on the scalp, which showed that it was not emphysema that had occurred during life.

(To be continued.)

DUBLIN OBSTETRICAL SOCIETY.

SEVENTH MEETING.[1]

THE Society met in the hall of the College of Physicians, on Saturday, 11th April,

Dr. HARDY, President, in the Chair.

The minutes of the last meeting were read and signed.

Dr. KIDD, Hon. Secretary, read a letter from Professor Harley, of University College, London, presenting to the Society a photograph of a youth now in his sixteenth year, who had been extracted from the uterus of his mother immediately after her death, when she was seven and a-half months pregnant. When Dr. Harley was house-surgeon to the Edinburgh Maternity, he was called to one of the patients who was in a state apparently of suffocation; failing to relieve her otherwise, Dr. Harley performed tracheotomy, but the woman died in a few minutes, whereupon he at once performed the Cesarean section, and extracted this boy, who is now a page in his service.

On examination, the woman was found to have been suffering from extreme narrowing of the mitral orifice of the heart and permenent patency of the aortic valves.

Dr. BEATTY read a "Case of Enormous Fibro-cystic Tumour of the Vagina" removed by operation, and exhibited the specimen.

The patient, aged 42 years, was admitted into the City of Dublin Hospital in August last. She was blanched and nearly pulseless, and very feeble from continued hæmorrhage from the vagina. Examination disclosed an immense fleshy mass, filling the whole vagina so completely that its attachment could not be made out even with the assistance of chloroform, whereby first Dr. Beatty and then Dr. Kidd got their hands successively into the vagina, but neither could reach any neck or attachment. Neither excision nor ecraseur could be employed, and with great difficulty a ligature was cast round, as high up as could be reached by the double canula of Gooch, and in eight days the tumour was cut through. There was delay and difficulty in its extraction, and the following day it was expelled from the vagina, of great size, and partaking of the fibro-cellular character. The source of its growth was then seen to be from the upper and left side of the vagina, a raw surface about the size of a half-crown piece pointing out its attachment.

The patient left the hospital well in three weeks.

Dr. Beatty exhibited the very large tumour, which had been admirably preserved in a solution of carbolic acid.

Mr. R. W. HARLEY detailed a case in which he had treated a man for gonorrhœa, and soon afterwards attended his wife in her confinement. On the second day the woman got effusion into the elbow-wrist and ankle-joints with great pain, which he treated as gonorrhœal rheumatism, and she made a good recovery, though tedious. The child also became affected with purulent ophthalmia. Mr. Harley briefly drew attention to the concurrence of gonorrhœa in the father, rheumatism in the mother, and purulent ophthalmia in the child, and also to the difficulty of distinguishing rheumatism occurring soon after delivery from puerperal arthritis.

Dr. MACDONALD, Professor of Natural History of St. Andrews, communicated to the society some views he has been recently led to entertain, as to the course of the circulation in the fœtus. He argued that the blood was carried from the placenta to the child by the umbilical arteries, and returned to the placenta by the umbilical veins, and illustrated his views by observations in comparative anatomy and in embryology.

Dr. MCCLINTOCK moved, and Dr. CHURCHILL seconded, a vote of thanks to Professor Macdonald for his communication.

VISIT OF H.R.H. THE PRINCE OF WALES TO THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

His Royal Highness, attended by Major-General Knollys, the Earl of Mayo, Viscount Hamilton, Lord Henry Lennox, Dr. Minter, Surgeon-Extraordinary to his Royal Highness; and Captain Stuart, A.D.C., visited the College by appointment on Wednesday last, and was received by Mr. Adams, the President and Surgeon to the Queen in Ireland; Mr. Porter, Vice-President; and the following Councillors:—Mr. Hargrave, Mr. Collis, Mr. Irvine, Dr. Barker, Dr. Wilmot, Mr. Macnamara, Dr. Labatt, Dr. M'Dowel, Mr. Ledwich, Mr. Jameson, Dr. Carte, Dr. Wharton, Dr. Hatchell, Dr. A. Walsh, Dr. Mapother, Dr. Elliott, Dr. A. H. Jacob, and Mr. Hughes, Secretary of Council. The following Examiners were also present:—Mr. Fleming, Mr. Stapleton, Mr. Richardson, Mr. Stoker, Mr. Tufnell, Dr. Barker, Mr. O'Grady, Dr. Quinan, Dr. Isdell, Dr. Cronyn, Dr. Byrne, Dr. Murray, Dr. Shaw, Professors Benson, Minchin, and Bevan, Mr. H. G. Croly, and Dr. Hewitt.

The Prince was conducted to the Albert Hall, where the memorial bust of His Royal Highness the Prince Consort was inspected by him. His Royal Highness then visited the Museum, under the guidance of Dr. John Barker, the Curator; and having inspected the Board-room, with its celebrated portraits of Hawthorne, Rennie, Colles, and Jacob, and the library, where some rare Egyptian illustrations attracted his attention, and were explained to His Royal Highness by Dr. Jacob, retired to his carriage.

Medical News.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—Since 1st January last the following gentlemen have passed the First Examination of the Faculty :—

Thomas Bebbington, Liverpool; Thomas Blackton, Galway; Joseph Highum, Glasgow; John T. Jones, Glasgow; Albert B. Lauder. Glasgow; Bernard J. Lee, London; Patrick M'Court, Glasgow; Edward O'Reilly, Dublin; George Stevens, London; Henry W. Toyne, Dublin; James F. Wharton, Glasgow: James W. Wilson, Glasgow.

During the same period the following gentlemen have passed the final examination of the Faculty :—

Thomas W. Blackton, Galway; Theobald Bryson, Glasgow; Patrick H. Burke, Dublin; Clifford Crewe, London; George M'Lean, Glasgow; S. J. Moore, Glasgow; Charles O'Doherty, Glasgow; Albert Ryan, Dublin; A. W. Smith, Glasgow; Albert J. Watson, Dublin.

The following gentlemen have passed the First Examination for the Double Qualification, granted conjointly with the Royal College of Physicians of Edinburgh :—

John M. Cuthbertson, Glasgow; Robert Davis, Glasgow; John Leckie, Glasgow; Robert H. Owen, Glasgow; Evan Powel, Glasgow; John L. Reid, Glasgow; William L. Roberts, Glasgow; William C. Thomson, Glasgow.

The following gentlemen have passed the Final Examination for the Double Qualification :—

Hugh W. Arbuckle, Glasgow; George R. Atkenson, Glasgow; James G. Beasley Glasgow; John Jones, Glasgow; Silvester Marsh, Manchester; James Robertson, Glasgow; William Stephen, Glasgow.

UNIVERSITY OF CAMBRIDGE.—The following report of the Board of Medical Studies was issued on the 22nd:—"The Board, having taken into consideration the requirements for admission to the degree of M.D., are of opinion that it would be advantageous to make some change in them, for

1 The papers will be published in full in the *Dublin Quarterly Journal of Medical Science.*

the following among other reasons :—That whereas at present the degree of M.B. and M.D.—on a level as far as conferring the right to practise as a physician is concerned—represent a difference of academical status only, the degree of M.D. if obtained by further and somewhat higher tests of qualification, would entitle the Doctor of Medicine to be considered as holding legitimately and substantially a position in the profession superior to that of the Bachelor of Medicine. The Board therefore recommend that, previously to the thesis being read, four topics, relating severally to physiology, pathology, practice of medicine, and state medicine, be submitted to the candidate, on one of which, selected by himself, he should be required to write a short *extempore* essay. That the *viva voce* discussion and examination in the act be somewhat extended in length, but restricted to the subjects of pathology, practice of medicine, and state medicine, and the subjects of the thesis and essay. That the assessor assist the Professor in choosing the four topics and in deciding on the merits of the essay, as well as in conducting the act. That the thesis be sent to the Regius Professor at least a fortnight before the time for keeping the act; and, after the act is kept, the thesis, or a copy of it, remain in the custody of the Professor."

CARMICHAEL PRIZES.—The successful competitors for the Carmichael Prizes are to be publicly announced, and portions of their essays are to be read in the theatre of the Royal College of Surgeons on Monday next at three o'clock. The Fellows of the College are specially summoned, and licentiates and medical students are also invited to be present.

SESSIONAL ARRANGEMENTS IN THE DUBLIN SCHOOLS.—We understand that a meeting of all the gentlemen connected with medical teaching during the winter session has been summoned to consider the expediency of opening the session on the 1st of October instead of the 1st of November. The time and place fixed on are Tuesday the 5th of May at four o'clock at the Royal College of Surgeons. We trust there will be a full attendance, so that the question may be fairly and fully discussed.

THE operating days at Royal Free Hospital have been changed to Tuesday at nine A.M., and Friday at 1·30 P.M.

VISIT OF THE PRINCE OF WALES TO DUBLIN HOSPITALS.

ON Friday the Prince and Princess visited the Mater Misericordiæ Hospital, and was received amongst others by His Eminence Cardinal Cullen, the Right Hon. Judge O'Brien, Right Hon. Judge O'Hagan, the Right Hon. the Chief Baron, Sir Wm. Wilde, Sir Bernard Burke, Sir James Power, Bart., M.P.; V. O'B. O'Connor, D.L.; Alderman Campbell, J.P.; the Right Hon. Mr. Cogan, M.P.; Sir John Hogan, M.P.; Dr. Hughes, Dr. Griffin, J. Lentaigne, Inspector-General of Prisons, Dr. Tyrrell. The illustrious visitors proceeded through the various wards of the hospital, and on returning to the reception room, the following address was presented to the Prince of Wales by Cardinal Cullen :—

"To his Royal Highness Albert Edward, Prince of Wales, Earl of Dublin. May it please your Royal Highness—We, the council and medical faculty of the Mater Misericordiæ Hospital, humbly approach your Royal Highness, and beg to express our joy that this, your auspicious visit to this institution, affords us the opportunity of mingling our voices with those of our fellow-citizens, who during the past days displayed such unanimity and concord in welcoming your Royal Highness and your illustrious Consort to the Irish shores. Whilst we sincerely trust that this, your visit to Ireland, may be the harbinger of a new and prosperous era to our country, we cordially pray that your Royal Highness and your illustrious Consort may enjoy many years of prosperity.—We have the honour to remain your Royal Highness's faithful servants."

Driving to the Adelaide Hospital, the illustrious visitors were received by the Board, including the Rev. Mr. Plunkett, Mr. George Woods Maunsell, Dr. Law, Dr. Duncan, Dr. Head, Dr. Little, Dr. Walsh, Dr. Macalister, Dr. Barton, Dr. Richardson, Dr. Smith, and Mr. Kenyon. The matron, Mrs. Russell, conducted the Royal party through the children's ward and day ward. Entering the board-room an address was presented to the Royal pair, who shortly after departed. Subsequently a vote of thanks was passed to their Royal Highnesses for their visit.

NOTICES TO CORRESPONDENTS.

A. B.—You will find a full report in the present issue.

W. M. R.—See leader this week. It is impossible to print your letter, although we confess that your indignation is by no means uncalled for. The conduct you denounce is certainly "infamous," but then you apply epithets to persons which are too strong for publication.

DR. WILSON.—Next week.

Correspondents who have kindly sent us the following newspapers with medical items marked will please accept our thanks. Many we are unable to notice owing to pressure on our space. The Somerset and Wilts Journal. The Oxford Times. The Razor. The Birmingham Daily Gazette. The Brighton Gazette. Worcester Journal. The Spectator, &c.

DR. WILSON.—The views of Dr. Symonds on headache were given in the Gulstonian Lectures for 1853, before the College of Physicians.

Letters have been received from R. G. Watts, M.D.; N. J. Butler; A Poor-law Doctor; W. B. Herapath, and T. M. Dalon, but are unavoidably postponed until our next.

UNQUALIFIED ASSISTANTS.

T. F. takes some exception to our remarks last week on Unqualified Assistants. In stating the case as it is in England and Ireland we merely drew attention to the facts.

Several other correspondents write upon this subject, and especially as to Poor-law Medical Officers. The following paragraph from one important letter embodies the pith of the remarks of several of our correspondents:—

"Of course no man would be fairly entitled to work by deputy (ordinarily) if he had no more work than he could do himself, and if the work were so well paid that he could afford to do it all personally, and even under existing circumstances when (contrary to law) he is so often in possession of a district far too large or too populous, no objection could be made to the recommendation that he should employ a *qualified* assistant only, provided he were paid a sufficient salary. But how if he must employ an assistant and if his salary won't pay the cost of a qualified man?"

VACANCY.

Medical Officer of Bandon Dispensary District, Bandon Union, H.B. Onuston, M.D., deceased.

MARRIAGE.

M'CLOSKEY—CALFERTY.—In the Catholic Church of Londonderry, on April 21st, by the Rev. Michael Tracy, C.C., assisted by the Very Rev. Dr. Devlin, V.G., Strabane, and the Rev. F. Kelly, C.C., Castlederg, Joseph R. M'Closkey, M.D., Strabane, to Rachel Maria, only daughter of John T. Calferty, Esq., Flax-Merchant, Londonderry. No Cards.

DEATH.

ONUSTON.—On April 21st, at Bandon, H. B. Onuston, M.D., Medical Officer of Bandon Dispensary District, Bandon Union.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 6, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S

FOURTH LECTURE ON FOOD.

PRESERVATION OF FOOD.—UNWHOLESOME AND ADULTERATED FOOD.

It requires no argument to show that the preservation of food is a matter of great public importance; for it not only enables us to provide against actual want in periods of unusual scarcity, but it also affords the means of equalizing the distribution of food at all times, so that the excess of one country may be used in supplying the deficiency of another. In the pastoral districts, for example, of Canada, Australia, Tasmania, the Cape of Good Hope, Mexico, the Argentine Republic, and the Brazil, thousands of tons of meat are always available as food, and yet they are lost to us because of the difficulties of preserving the meat. In South America, at least two millions of beasts are annually slaughtered for the fat, skin, and bones, the flesh of which could be supplied here at less than 2½d. per pound. So also in Australia, the amount of meat available as food is practically inexhaustible. Last year Mr. Philpot stated to the Food Committee of the Society of Arts, that he himself was in the habit of melting down from 1000 to 1500 sheep daily for four months together; and that in the vast districts of rich pasture-land from Victoria to Brisbane, there was an unlimited supply of the very finest meat—all of which was at present entirely wasted, because of the difficulty of disposing of the flesh; and, therefore, the carcasses of the animals were melted down for fat. A bullock in Australia, he said, costs only from £3 to £4; and legs of mutton of the very best quality were, when salted, sold for three shillings a-dozen. If some simple and practicable means could be devised for preserving such meat, it might be supplied to our markets at less than 3d. a pound.

Until recently the only process employed for this purpose was the rude method of salting the meat, but the deterioration of it was so obvious, and the distaste for it so general, that it was only practiced to a limited extent, and for occasions when fresh meat could not be obtained. The salt junk of the navy in olden time was a good example of the wretchedly unwholesome and indigestible meat prepared, for it could hardly be called preserved, by this process. Recognising, therefore, the necessity for a better means of preserving food, the naval authorities of every country appealed to science, and gave the largest encouragement to inventors. A further stimulus to invention was created by the necessity for supplying our Arctic explorers with good and wholesome food during their long winter residence in the frozen seas of the north; and as that inquiry was set on foot, not merely for the purpose of discovering a north-west passage to our possessions in America, but also with the view of prosecuting scientific research in almost inaccessible regions, an unusual inducement was offered for the preparation of such food. The demand thus created was soon acknowledged by science, and was also met by the practical skill of the manufacturer, so that the Arctic voyager went confidently on his journey, knowing that he had other food than the unwholesome junk of the navy. The earliest preparations supplied to him were mixtures of dried meat with sugar and spice (*pemmican*), but after a time they were furnished with fresh meat, preserved in air-tight cases. At first the supply was chiefly for voyagers in cold countries, but when the value of this method of preservation became known, the European residents of hot climates, as India, eagerly sought for the fresh foods which they were accustomed to use in their own country, and thus an additional stimulus was given to this process of manufacture. At the present time it has acquired gigantic proportions.

I have before me a list of the specifications of patents relating to the preservation of food, from the year 1691 to the end of 1855, and I find that one only was described in the seventeenth century, and 3 in the eighteenth, while as many as 117 were specified in the first 55 years of the present century. Invention, however, has not been prolific of new processes, for it is mainly confined to an application of one or two simple elementary principles—26 of the patents, for example, are for the preservation of food by drying; 31 by excluding atmospheric air; 8 by covering the food with an imperious substance, as fat, extract of meat, gelatine, collodion, &c., and 7 by injecting meat with various salts.

But before we proceed with the examination of these processes, it will be advantageous to inquire a little into the circumstances which favour organic decomposition. It would seem from experiment and observation that three concurrent conditions are absolutely necessary for active

putrefaction—namely, the presence of much moisture, the access of atmospheric air, and a certain temperature, as from about 40° to 200° of Fahrenheit; any of these being absent, the organic substance resists decay. All preservative processes must, therefore, depend on an application of one or other of these principles; and perhaps we may add a fourth—namely, the action of chemical agents. Let us review these in detail.

1st. *The preservation of substances by drying them* is of very ancient date. In our anatomical museums we have long known that specimens of the animal body may be preserved for an indefinite time by drying them, and then varnishing them so as to exclude moisture. Here is a dissection prepared in that manner, which has been used for lecture illustration at the London Hospital for more than half a century, and yet it is as sound as when it was made. In warm climates it has been a practice for ages to preserve fish, and even meat, by drying them—the meat being cut into strips and exposed to the action of warm dry air. Charqui or South American beef, which you see here, is an example of it. It is obtained from animals that are grass-fed, and they are killed by pithing and then bleeding them. Directly the hide is taken off, the flesh is stripped from the bones and allowed to cool. It is then placed upon a table, and jerked, or cut up into thin slices, which are piled up in heaps with alternate layers of salt. After standing twelve hours the meat is turned, and fresh salt is added where necessary. The next day the salted strips are placed upon hurdles, and exposed to the sun to dry. It requires two or three days to dry the meat thoroughly, and, for fear of damp, it is always taken indoors at night. There are several varieties of this meat, as *pato*, which is the best and most free from sinew; *manta*, the second quality; and *tasajo*, the third, which is very thin and full of sinews. All the varieties require to be well soaked in water, and then to be cut small and cooked by prolonged boiling. But animal foods are not well preserved in this manner, as they lose their flavour, and become tough and indigestible: the fat also gets rancid; and in damp weather the meat absorbs moisture and becomes mouldy and sour. Perhaps the lean parts of meat, as the heart, the tongue, and strips of muscle might be advantageously preserved in this way, especially in warm and dry climates. The food committee of this society reported favourably of a specimen of dry powdered beef from Queenstown, which they said was in excellent condition, and contained about four times as much nutritious matter as ordinary meat. Generally, however, the fat is very rancid, even when pains are taken to prevent the substance from getting mouldy. It is on this account that all attempts to preserve milk and the yolk of eggs by drying have failed, although the dried white of egg will keep well, as in the process of Mr. Charles Lamont, where the albumen is dried in thin scales—forty-four eggs making about one pound of the preparation. Absorbent substances mixed with the fatty food will obviate the difficulty to some extent, as in the preparation of *pemmican*, where sugar and spice are added to the dry powdered meat: and in the several processes for preserving milk by evaporating it and mixing it with sugar, &c., as in the patents of Newton (1835), Grimwade (1847 and 1855), Louis (1848), &c.; as well as the process of Davison and Lymington (1847) for preserving eggs by mixing the yolks and whites with flour, ground rice, or other farinaceous substance, and drying. Extract of meat also may be preserved in the same manner, as in the patent of Donaldson (1793), of Robertson (1851), and of Borden (1851), where the extract, after the separation of fat, is mixed with farinaceous matters; in the last case is also baked in the form of biscuits. In the year 1854 MM. Blumenthal and Chollet obtained their patent for combining meat and vegetables in the form of tablets, by first drying the meat and vegetables and pressing into cakes, and then submitting them to successive immersions in rich soup—allowing them to dry in warm air after each immersion. When the extract of meat is made without fat or gelatine, as in the case of Liebig's extract, it may be kept for a long time in a pasty condition, without mixing it with farinaceous matters, although the preparation of it with baked flour, as already described, is a great improvement.

The process of drying is, however, best adapted for the preservation of vegetable substances, and it has been so used from time immemorial, as in the keeping of pot-herbs, in preparing the tea-leaf, in making hay, &c. In this country the first recorded patent for preserving vegetables by drying them was granted in 1780 to John Graefer, who sought to retain the flavours of vegetables by first dipping them in boiling salt and water, and then drying. Forty years later (1820) John Vallance obtained a patent for preserving hops by drying them, and compressing them into a small space. Then came the patents of Edwards (August, 1840) for boiling, granulating, and drying potatoes; and of Grillet (November, 1840) for preserving both cooked and uncooked potatoes by drying. Ten years afterwards (in November, 1850) Masson obtained his patent for preserving vegetables by drying them and forcibly compressing them, so that they were reduced to one-seventh their original bulk—a cubic yard containing rations for 16,000 men. This process has been very successful, and it is still practised by Devaux, Chollet, and others, for it serves for the preservation of all kinds of vegetables, as potatoes, cabbages, carrots, cauliflowers, beans, apples, &c.; and when steeped in water they re-absorb their natural proportions of moisture and swell out to their original size. They are, however, somewhat deficient of flavour, and they require prolonged boiling, as from one and a-half to one and three-quarter hours to cook them.

By a more careful process of drying, Mr. Makepiece has managed to preserve both the colour and the flavour of vegetables, especially of pot-herbs, as you may see from these specimens.

Altogether there are, or have been, about thirty-one patents in this country for the preservation of various articles of food by drying them.

2nd. *The preservation of organic matter by excluding atmospheric air* is, like the last, a very ancient process. The old practice of burying the dead in leaden coffins, and the still more ancient custom of swathing them in resinous bandages or waxed cloths (called cerements), owe their preservative power to the exclusion of atmospheric air; and it is remarkable, seeing the efficacy of the process, that the scientific principle of it was not long ago recognised and applied to the preservation of food. The first patent of the kind that I am acquainted with in this country, was granted to Francis Plowden, in June, 1807, and he describes it as a process for "preserving butcher's meat, animal and other comestable substances, by encrusting them with a substance, which must not only resist the effects of atmospheric air, but must not communicate any noxious quality to its contents," and for this purpose he employed essence or extract of meat—the substance being dressed, so that it may preserve the longer, is wiped dry, and put into a wooden vessel, and the hot extract is poured over it in a fusible state, so as to find its way into every vacuum. Three years later (in February, 1810), Augustus de Heine took out the first patent for preserving meat, by exhausting the air from the vessel containing the meat, and he contrived a machine for the purpose, as the action of the common air-pump was tedious. Six-and-thirty years after this (in 1846), the late Mr. Warrington of Apothecaries' Hall, obtained his patent for the preservation of animal substances, by coating them with common glue, gelatine, or concentrated meat gravies, or otherwise by dipping them in warm solutions of such substances; or by wrapping them in waterproof cloth, or covering them with caoutchoue, gutta-percha, or varnish. These mark the starting-points of the various processes now in use; for example:—

(*a*). Of those which owe their operation to the exclusion of air, *by filling up the vessel with something hot*, there are the patents of Plowden (1807), who used rich gravy or extract of meat; of Granholm (1817), who used hot fat, or hot animal jelly; and of Wothly (1855), who used oil, as

in preserving anchovies. I am rather surprised, considering how easily the exclusion of air is effected by surrounding the substance with hot fat, that this method of preserving meat has not been adopted in Australia and South America; for as the fat which they prepare from their wild stock is sent to this country in casks, there would be no difficulty in sending with it the finer descriptions of joints, as legs of mutton, and good pieces of beef. The process should be conducted as follows:—When the fat is melted, and is at a temperature of from 240° to 250° Farh., the fresh joints should be plunged into it, and kept there for a few minutes, so that the superficial moisture might be thoroughly evaporated. They should then be immediately packed in sound dry casks, and filled up with hot fat, at a temperature of 212° or thereabout. In this manner the fat and the joints might be transmitted to this country, and on their arrival there would be no difficulty in melting the fat while in the casks, and then removing the preserved joints.

Vegetable substances are frequently preserved in bottles filled up with hot syrup, and the practice is a very old one. Hot water is also used for the same purpose, and this method dates from the year 1807, when this Society gave a premium to Mr. Saddington for his method of preserving fruits without sugar. His process was to gather the fruit a little before ripening, and to put it immediately into clean bottles—filling the bottles with the fruit to the neck. They were then placed in a vessel of cold water, and heat was applied until it rose to the temperature of 160° to 170° Farh. After standing exposed to this temperature for half-an-hour, the bottles were filled up to within an inch of the top with boiling water, and were then immediately corked and covered at the top with cement. The action of the heat was not merely to expel atmospheric air from the bottles, but also to coagulate the vegetable albumen of the fruit. Fruits and green vegetables are still preserved in this manner, a little alum being generally added to the water in the bottle, for the purpose of hardening the tender skin of the fruit, and so preventing its disfigurement by bursting.

(b). A process not very unlike the preceding is that which consists in *the destruction of the oxygen of the air in the vessel, by heating the substance in it.* This is the plan of M. Appert, who in 1810 (three years after the publication of Mr. Saddington's method), obtained the reward of 12,000 francs, offered in the preceding year by the French Government, for the best method of preserving food. Here is the book which M. Appert wrote at the time, and he tells us to cook the food to some extent, and put it into strong glass bottles—filling them almost to the top. The bottles are then to be securely corked, and exposed for some time to the action of boiling water. To guard against accident from bursting, the corks are to be wired down, and the bottles wrapped up separately in cloths. After this the corks are to be well covered with pitch, to exclude atmospheric air. A like process was patented in the autumn of the same year (1810), by Mr. Peter Durand, who, no doubt, derived it from the published account of M. Appert, dated nine months before, and since then many such patents have been obtained, which I need not describe. Attempts have frequently been made to preserve milk by this process. Appert recommended that the milk should be boiled down to about half its bulk before putting it into the bottles, and in 1847 Bekaert tried to improve the process by adding carbonate of soda to the milk. Later still, in the same year, Martin de Lignac obtained a patent for preserving milk, by evaporating it to one-sixth of its bulk before bottling it. Then there were the patents of Symington and of Morean (1853), but all these methods have failed in practice, on account of the difficulty of preventing the separation of the butter.

(c). The preservation of food *by exhausting the air from the vessel containing it* dates, as I have said, from the year 1810, when Augustus de Heine proposed to use a vessel with a valve in the top of it, which allowed the air to be drawn out by means of a special apparatus, but not again to enter. The exhaustion, however, was so imperfect that the process did not answer. In 1828 Mr. Donald Currie improved it by admitting carbonic acid gas into the vessel after it was thoroughly exhausted; and later still, in 1836, M. Leignette still further improved it, by filling the vessels containing the food, with salt and water, and then letting out the liquid through the aperture, which remained open for that purpose, while carbonic acid gas went in. Six years after this (in 1842), Mr. John Bevan patented a process for drawing out the air by an exhausting apparatus, and then admitting a warm solution of gelatine; and in 1846 Mr. Rettie employed, in the like manner, a solution of common salt. But none of these methods were successful; nor was the patent of Mr. Ryan, in 1846, for using gases, chiefly acetic acid vapour, and carbonic acid gas. The most perfect process of this kind was patented by Messrs. Jones and Trevethick. It consists of an apparatus whereby the exhaustion of the vessel containing the raw food is effected in an air-tight trough of water, and thus the entrance of air and the collapse of the sides of the vessel are completely prevented. After the exhaustion pure nitrogen is admitted into the vessel for the purpose of diluting the residuum of air, and it is again exhausted. Lastly, a charge of nitrogen containing a little sulphurous acid is let into it, and thus the last trace of oxygen is chemically absorbed. The vessels are now in a proper condition for removal from the air-tight water trough, and for having the apertures sealed with solder. Meat, fish, and poultry preserved in this manner has been found good after seven or eight years; and specimens of them were exhibited in the London exhibition of 1862.

(d). The most common method of driving out the air *is by means of steam.* The food is put with a charge of water into a tin case with a hole in the top, and when the water is boiling actively, and steam has displaced the air, and is escaping freely, the hole is stopped with solder. This process dates as far back as 1820; but the first patent for it was granted to M. Pierre Antonie Angilbert in 1833. He had, however, a very rude method of applying heat to the tin vessels, and this was improved by Wertheimer in 1840. In the month of January of the year following Mr. Gunter improved it still further; and later in the same year both Goldner and Wertheimer obtained patents for using a bath of muriate of lime for heating the vessels. This in fact is the practice at the present time by Goldner, McCall, Richie, Morton, and others, who are largely engaged in the preservation of food. The details of the process for effecting it are as follows:—The raw meat and vegetables are put into the canisters and soldered down—a pin-hole aperture being left in the lid. The canister is then subjected to the heat of the bath (a little above 212°) until the contents are about two-thirds cooked; and then, while the steam is blowing freely out, the aperture is dexterously sealed tight with solder. The canister is then painted over with a stiff oil paint, and is exposed for some time in the testing-room to a temperature sufficiently high to promote decomposition. If the canister shows no sign of bulging out from the generation of putrefactive gases, it is considered sound. Messrs. Hogarth and Co., of Aberdeen, use steam instead of the muriate of lime bath.

Meat preserved in this manner will keep for a considerable time. At the exhibition of 1851 vouchers were given for some of the samples that had been preserved for twenty-five years; and at the exhibition of 1862, I tested specimens of food which had been kept for more than thirty years. To night, through the kindness of Messrs. Crosse and Blackwell, I am able to show you a specimen of preserved mutton, which has been in the case forty-four years, and you will perceive that it is in excellent condition. It formed part of the stores supplied by Messrs. Donkin and Gamble in 1824 to his Majesty's exploring ship *Fury*, which was wrecked in Prince Regent's Inlet in 1825, when the cases were landed with the other stores, and left upon the beach. Eight years afterwards

(in August, 1833) they were found by Sir John Ross in the same condition as they were left; and he wrote to Mr. Gamble at the end of that year saying, "That the provisions were still in a perfect state of preservation, although annually exposed to a temperature of 92° below and 80° above zero." Some of the cases were left untouched by Sir John Ross; and after a further interval of sixteen years the place was visited by a party from H. M. ship *Investigator*, when, according to a letter from the Captain, Sir James Ross, "the provisions were still in excellent condition, after having laid upon the beach exposed to the action of the sun and all kinds of weather for a period of nearly a quarter of a century." Messrs. Crosse and Blackwell have placed the original letters in my hands for perusal, and they show beyond all doubt that meat preserved in this manner will keep good for nearly half a century—in fact the case of boiled mutton, now before you, has been preserved for forty-four years. There can be no question, therefore, as to the success of the process; and hence it is largely practised, not only in this country but also in our colonies where food is abundant. In this way preserved salmon and lobsters are sent to us from Newfoundland, turtle from Jamaica, beef and mutton from Canada, and the dainty tail of the Kangaroo from Australia. There are, however, two serious objections to the process—namely, that the meat is nearly always overcooked, and the cases are liable to buckle and crack from the constant pressure of the atmosphere—there being a vacuum within them. The over-cooking arises from a desire to ensure the complete exclusion of atmospheric air by the steam. Mr. Nasmyth has proposed, in his patent of 1855, that a little alcohol should be mixed with the water, so that the boiling point may be reduced; while Mr. M'Call, taking advantage of the absorbent action of sulphite of soda on oxygen, recommends a less prolonged boiling, and the use of a little of that salt. The salt is contained in a small capsule, fixed by means of soft solder to the inner surface of the cover of the case. When the food is about two-thirds cooked, and steam is freely escaping, the hole in the lid is stopped with a very hot iron, which melts the soft solder of the capsule within, and so sets free the little pellet of sulphite of soda, which speedily absorbs the remnant of oxygen left in the case.

The other difficulty, namely, the cracking of the case from atmospheric pressure, is obviated, as I have already explained, by the introduction of inert gases, as carbonic acid, nitrogen, &c., with a little sulphurous acid, and these have been the subject of many patents, as of Currie (1828), Leighette (1836), Ryan (1846), Nasmyth (1855), and others.

(e). The last method of any importance for excluding atmospheric air from food, is *by coating it with some impervious material.* This plan, as I have already stated, was first suggested by the late Mr. Robert Warrington, who, in March 1846, obtained a patent for the use of "common glue, gelatine, or concentrated meat-gravies; or hin cream of plaster of Paris, which, when set hard was to be saturated with melted suet, wax, stearine, &c." "The things were then to be wrapped in water-proof cloth, or covered with caoutchoue, or guttapercha; or coated with a varnish of these substances; or kept submerged in glycerine, treacle, elaines, oils, or other such matter not liable to oxydation." Nine years after this, in January, 1855, a patent was obtained by Messrs. Delabarre and Bonnet, for preserving meat, bread, eggs, vegetables, or pastry, by coating them with a varnish, made from the flesh and bones of animals, by boiling them, and obtaining a rich syrup. This when clarified was used to cover the parboiled meat, or vegetables. In the month of February of the same year, a like patent was granted to Mr. Hartnall, for a process of preserving animal and vegetable substances by immersing them in baths, consisting of gelatine and treacle dissolved together in certain proportions; then drying, redipping, and covering with charcoal powder. Later still, in the same year, Mr. Brooman patented the use of albumen and molasses, as a coating for meat, after the meat had been partially dried, and then suspended in an air-tight vessel, charged with sulphurous acid. Lastly, in the month of December of the same year, Messrs. Bouëtt and Douein obtained provisional protection for the use of collodion, either alone or mixed with other suitable substance.

But the best example of this method of preserving meat is the process of Dr. Redwood, whereby the meat is first covered with paraffin, and then with a flexible coating of gelatine, mixed with glycerin or treacle. The joints are dipped into a bath of paraffin, having a temperature of from 240° to 250° of Fahrenheit, and are kept therein until the surface moisture is evaporated. They are then transferred to a colder bath of paraffin, from which they receive two or three coatings, prior to their being covered with the last flexible covering of gelatine, &c. When the meat is required for use, the paraffin is easily removed from it, by plunging it into boiling water; which dissolves the flexible coating and melts the paraffin. The paraffin floats upon the water, and when cold may be collected for future use.

The common methods of preserving foods by forcing them into skins, as in the case of German sausages, lard, &c., is of very ancient date; although a patent was granted to Mr. Palmer, in 1846, for the preservation of the fat of beef, mutton, veal, or lamb, when fresh, by melting them, straining, and then packing in bladders.

(To be continued).

Original Communication.

THE RATIONAL TREATMENT OF CONSUMPTION.

By JOHN MULVANY, M.D., L.R.C.S.Ed., Etc.,
ASSISTANT-SURGEON, R.N.

(Continued from page 372.)

I HAVE presumed the existence of bronchial spasm, and will now proceed to state on what grounds this assumption is based. The decided and immediate relief which follows the act of Emesis—nature's own method of relieving spasm—first attracted my attention, and caused me to suspect its existence; but as the violent muscular efforts by which that act is performed would have the effect of emptying the vomica if no such or an opposite condition of those muscles obtained, I tried the effects of veratrum viride, the action of which in overcoming spasm without producing vomiting is well established. Free expectoration, and consequently diminished cough, were the immediate effects. But to ascertain more directly I tried to produce bronchial spasm by irritation of the pneumogastric. Having, with the assistance of a friend, cut down on this nerve in the neck of a dog, and loosely tied it with a thread, so as to keep up gentle but *prolonged* irritation, we found that after a short time the respiration became quickened, and that the act of inspiration was performed in a jerking, spasmodic manner, the whole body shaking with the inspiratory effort. From this I inferred that if an irritant was applied to a few peripheral twigs, as in a vomica, instead of to the entire trunk, the effects would be more local, and instead of the whole respiratory apparatus being spasmodically affected, those muscles only whose nervous supply was directly irritated would suffer—viz., the bronchial.

The following incident which lately occurred seems to point to the same conclusion. A medical friend of mine, whilst ruralizing during the hot weather, was stung by a bee behind the right frontal eminence. The pain which it occasioned at the moment was so slight that he took no notice of it; but a few hours afterwards the part stung became stiff and painful; slight lachrymation of the corresponding eye ensued; soon afterwards he experienced a sensation of numbness or stiffness passing from the ear to the side of the nose and angle of the mouth. Several hours afterwards a difficulty in swallowing ensued, and to

this succeeded a feeling of constriction of the chest, and an inability to take in a full inspiration. On examining the part he found the sting of the bee remaining, and on withdrawing this the symptoms yielded in a few hours.

In this case the sting of the bee acted somewhat similarly to the loose thread tied round the pneumogastric in the dog's neck, as shown in the preceding case. The explanation which he gave of the production of his symptoms is the following:—The sting irritated a branch of the temporo auricular nerve, which irritation, from its persistency, passed successively to the lachrymal, facial, pharyngeal, plexus, pneumogastric trunk, and through the pulmonary plexus, to the bronchial muscles, throwing them into a state of irregular action, a kind of sub-spastic condition, which mechanically impeded the inflation of the lungs. If the sting produced a paralysing influence on the pneumogastric, there might be some difficulty in swallowing, as well as in respiration; but in the latter case it is the expiratory act that would be embarrassed. Again, if the action of the diaphragm were interfered with through the medium of the phrenic, there might be difficulty in inspiration. But the respiratory trouble being caused by the same influences which produced the difficulty in deglutition, we may presume that the œsophageal and bronchial muscles were in a condition similar to that of the *stiffened lygomatici*.

It may not be inappropriate to cite the following case as an instance of what I consider pneumogastric paresis, with slight relaxation of the bronchial muscles:—

A carpenter, J. W., æt. 29, was, in the month of January, 1867, exposed to a cold wind, which beat the falling snow against his right ear. Neuralgia of the face was the consequence. This after a few days disappeared. He then complained of cough and shooting pains through the right lung. The heart's action was quick and sharp, and the respiration was of a peculiarly nervous jerking character. The air entered freely into the chest, but its expulsion was attended with some difficulty, and accompanied by an exaggerated muscular fremitus. This case I considered one of neuralgia of the pneumogastric, with relaxation of the bronchial muscles, which, thrown into vibration instead of contraction during the expiratory act, produced the peculiar fremitus alluded to, and prolonged the expiration. The sharp, quick action of the heart, analogous to that produced by section of the vagus, showed that the inhibitory action of that nerve was in abeyance. A few six-grain doses of potassii iodidi removed the symptoms in twenty-four hours.

That the sympathetic is in a state of excitement from the continued irritation conveyed to it from the vomica, I inferred from the accelerated action of the heart, the quick small pulse, and dry skin. The sympathetic presides over and governs the functions of the circulatory system. The pneumogastric, however, seems to be concerned in the governance of the heart's action, its action being the opposite of the sympathetic, section of the one producing the same effect as stimulation of the other. Acceleration of the heart being produced in either case, it may, therefore, seem somewhat contradictory to assert that the quickened action of the heart is due to excitation of the sympathetic, at the same time that the vagus is also irritated, since the acceleration by the former would be neutralised by the slowing by the latter. But it is easy to understand that the pulmonary branches of the pneumogastric may be excited without its cardiac filaments partaking in the excitation, just as certain portions of the sympathetic are excited by belladonna or ergot, and depressed by veratrum viride, which, whilst it restrains the activity of the thoracic and abdominal ganglia, appears to exert little or no influence on the cervical.

Again, my idea that the sympathetic is morbidly excited by the vomical irritation, receives confirmation from the following facts. Belladonna in poisonous doses will give rise to the same heat of skin, dryness of the body, and acceleration of the heart. Similar effects will be occasioned by prolonged irritation of the sympathetic in the neck. Moreover, the cold stage of ague, characterized by a quick, small pulse, increased heat of body as shown by the thermometer, and relative coldness, with pallor of the surface, due to extreme contraction of the coats of the small arteries producing a stoppage of circulation through them, is caused by extreme activity of the sympathetic. When this extreme activity becomes abated, as in the hot stage, we have a condition of the system produced similar to that observed in phthisis: when a vomica has existed for some time, the excited sympathetic stimulates the heart to increased action, but the stimulation being less than in the first stage, the small arteries permit the passage of blood through them, and the skin becomes hot, but its organic muscular fibres remaining still contracted, and the coats of the small arteries being in a similar condition, and therefore, as it were, condensed, prevents the blood (circulating through them) from yielding up those portions of its constituents which should be eliminated by the sudoriparous glands. Hence, the body remains dry; the heat, which should have been carried off in evaporation, being retained, tends to produce that elevation of temperature so characteristic.

Thus, as in the first instance, the depuratory action of the skin becomes thrown out of gear, but in a different manner, and the elements retained in consequence in the blood, along with the effects of sub-oxidation, which as I have shown still exists, will, when sufficiently accumulated to produce a still further stimulation of the sympathetic, give rise to rigors. It is possible that the motor nerves may be irritated and that this irritation may have something to do with the production of the rigors, but to me it seems more probable that the sudden shutting off of the blood from the arteries of the skin, and the consequent deprivation of heat from the surface of the body, produces them, just as cold will make the frame shiver and the teeth chatter. Hence, probably, their short duration. But as over-exertion is followed by fatigue, so is hyperstimulation by depression, arterial relaxation and profuse sweating naturally result—nature, by this means, purging the system of the unhealthy products which produced the perturbation. To this relaxation, sleep, darkness, and the recumbent position, materially contribute, and therefore the patient's perspirations are nightly, and most profuse when the pulse is lowest, viz., towards morning. And now I may ask, is it logical to try to check those perspirations? Does it not look like closing a safety valve which nature herself has opened? By administering acids or astringents, as is usually done for night sweats, we are, to use a metaphorical expression, driving nails into the patient's coffin, because we thereby aid the vicious activity of the morbid action going on in the vomica. As the depressed state of the sympathetic passes off, it again becomes irritated by the morbid cell-action in the vomica. The pulse begins to rise again, the symptoms undergoing a gradual exacerbation, until finally the same cycle of symptoms are reproduced, the evening exacerbations, chills, flushes, and night sweats.

But besides the influences brought into action from within by the great tubercular factory, there are others which operate on the patient from without in a manner equally decided and more manifest. I allude to atmospheric influences. Having kept a meteorological journal since my entering into the service I have often observed the influences, frequently inexplicable, which atmospheric vicissitudes exert in the production or modification of disease, but in no other disease have I seen their effects so strikingly illustrated as in phthisis. Its electrical condition, the absence or presence of ozone, and its quantity, the state of the barometer and thermometer, seem to be the conditions most intimately associated with the varying conditions of the phthisical patient. Thus on a fine clear day, when the ozonometer shows a tolerable amount of ozone, when the atmosphere is electrified, positively the phthisical patient finds himself in capital spirits, with all his symptoms ameliorated. But when the sun is overcast, and but dimly seen through a stratum of greyish clouds, or a few darker and thicker ones float lazily nearer to the earth, with a moisture in the atmosphere, a diminution or com-

plete absence of ozone and negative electricity, all his symptoms are aggravated. A high thermometer, as in the month of July, is unfavourable, a falling or low barometer is, on the contrary, favourable, provided it is not accompanied by moist winds. Thus in the month of January, 1867, which I should say is the healthiest month of the year in Canada, the mean height of the thermometer taken every four hours was 19° Fahr., the range from 14° below zero to freezing point. The mean height of the barometer for the same month taken at the same hours was 29°·33, the range between 28°·80, and 29°·92, thus, contrary to what might be expected, the barometer during the coldest was on the average lower than any other month in the year. The climate of Canada has been much extolled for its adaptability for consumptive cases, but I think it has been overrated. With the exception of a part of December, the whole of January, a portion of February and of March, in which the air is cold and bracing, the thermometer and barometer low, the sky clear blue, and the ground covered with snow, I should say the climate is but little suitable for such patients; the spring weather is too changeable, the atmospheric vicissitudes too sudden, the winds too keen and biting, and the showers of rain too frequent. The summer is better, the weather is more uniform, the sky is clear, the atmosphere positively electrified in a tolerable state of ozonization, with little rain or wind. In July, August, and September, the heat is rather too strong—however, the fall of the year is characterised by the same vicissitudes as the spring, excepting that small (frequently I believe) mythical portion called the Indian summer; the weather is then mild, neither possessing the hotness of the summer nor the coldness of the winter, foggy in the morning, and smoky in the evenings. This smokiness is its peculiar characteristic. *Meteorology* is a science, the study of which is highly interesting and instructive; not only will its investigation enable us to establish the dependance of some diseased states of the human system on certain atmospheric conditions and thus become a guide to their treatment, but will also throw light on many of the occurrences of daily life, usually put down as "curious coincidences." The affinity which exists between certain states of the barometer and thermometer, the degree of humidity or dryness of the air, and the preservation of health or prevalence of disease, is truly remarkable. Still more remarkable are the atmospheric influences produced through the media of its ozonic and electrical conditions, differing as the ozone is in excess or deficiency, as the electricity is positive or negative, in a state of tension or otherwise. The vivifying tonic properties of positive electricity have long ago been hinted at by Wilson Philip, and established by later experimenters. That negative electricity produces opposite effects on the human system is tolerably certain.

The production of an intractable ulcer on the leg by the application of a zinc plate to the skin, and a copper plate over that, and the rapid healing which takes place on reversing the plates, as reported by, I think, Dr. Colles, gives an admirable illustration of the effects of the opposite electricities. I have long had an idea that the science of astronomy might be made subservient to the healing art. For if we could connect certain atmospheric conditions with the production of diseases and accidents, as I think we can, we might, by watching the evolutions and conjunctions, &c., of the heavenly bodies, predict the coming weather, and take precautions against the accidents which are likely to be occasioned thereby. Let me illustrate my meaning. Medical jurists tell us that at times men are subject to uncontrollable impulses to commit crime, and Captain Grounow, in his memoirs, mentions the case of a Frenchman, who was seized with *une envie de tuer quelqu'un*, whilst at table rushed out of the room, killed a man, and returned. A look at the newspapers from time to time, will show that suicides and babies usually occur in batches. The same may be said of toothaches, delirium tremens, cases of fractures, and other accidents; cases of drunkenness follow a similar rule, illustrating the adage of Kitty of Coleraine—"That misfortune seldom comes single or plain." Now the question arises, can we in any way connect the state of the weather with the breaking of one man's rib, the fractured leg of another, the black-eye received by a third, the severed jugular of a fourth, or the *envie de tuer quelqu'un* of a fifth. I think we can. In the Gulf of Mexico, the officers and men of the ships stationed there get into a frame of mind, known throughout the service as gulfiness, characterised by a cantankerous captious feeling, a readiness to take offence and quarrel with anybody. This condition of gulfiness is evidently owing to the high electric tension of the atmosphere peculiar to Central and South America, the men and officers seldom being able to go ashore, and work off their superabundant electricity.

The opposite condition may be observed in our own more triste climate, where the atmosphere is very often negatively electrified. There the negative electricity produces a depressing effect on the mind, the potency of which may be inferred from the ulcer producing capabilities of negative electricity, by the zinc and copper pile, already alluded to. This depressed frame of mind, familiar to all of the nervous and sanguineous dispositions, and experienced on the *dias pesados*, is precisely opposite to the condition which exists in gulfiness, the *envie* it produces is towards self-destruction. The restlessness of the natives of Central and South America, and the continual wars, revolutions, and quarrels, which go on there, are, no doubt, in some manner attributable to the high state of electric tension of the atmosphere in those parts. Transplant the fighting Columbian to England, and the suicidally inclined Englishman to Bagota, and ten to one but Chilolo will cut his throat, and John Brown will head a rebellion. Again, on the 2nd ult., a well behaved seaman, of good character, went ashore, broke the pledge and his tenth rib; three days afterwards, another equally well-disposed man went ashore, and severely contused the eight, ninth, and tenth ribs; on the following day, another man went ashore, and got his tenth rib, same side, broken. By what mysterious coincidences, I may ask, were these three men impelled to go ashore, abjure teetotalism, and as a natural consequence, become inebriated, stumble, and sustain the accidents above stated. The days on which these events occurred were essentially *dias pesados;* the negatively electrified atmosphere depressed their spirits, they probably experienced an *envie* to commit some rash act, or at all events the depressed frame of mind, of which that *envie* is the offspring, and they were driven to seek the cheering influences of old rye—a means, whereby they unconsciously restored the electric equilibrium in their bodies; but not content with that, they carried their potations too far, contused and broken ribs ensued, a commentary on their folly, and a memento of the influence of negative electricity.

(To be continued.)

Hospital Reports.

CITY OF DUBLIN HOSPITAL.

EPISTAXIS—PLUGGING THE NOSE—ILLUSTRATED BY FOUR CASES.

Under the care of Mr. CROLY.

Case 1.—E. S., a female, aged 49 years, was admitted into the City of Dublin Hospital with bleeding from the right nostril, which had continued for several days. The ordinary remedies had been at first adopted by her medical attendant, who, as a last resource, plugged the anterior and posterior nostril. The hæmorrhage was thus checked for a short time, but having recurred, she was sent to the hospital. On her admission, it was found that the blood flowed down her throat, and also escaped anteriorly. The patient was much exhausted. Mr. Croly, finding that the plugs were not *then* effectual, considered it necessary to plug the nose again, and proceeded in the following man-

ner :—A piece of lint folded to the size of the last phalanx of the thumb was *stitched through its centre* with a hemp ligature, leaving *two* ends sufficiently long to pass through the anterior nostril, and *one* through the mouth. The plug thus made was moistened with muriated tincture of iron. The operator then took a gum-elastic bougie (No. 2) and transfixed its point with a needle armed with ligature-silk, and tied a loop on it; and (having removed the plugs which were first introduced) passed the bougie straight along the floor of the nostril; its point appearing behind the velum palati was seized in a long forceps, and drawn forwards through the mouth. The *double* ligature of the plug was passed through the loop, and tied. The bougie was withdrawn through the nostril, and the plug, held between the ends of the first two fingers, was guided behind the velum and wedged into the posterior nostril by the point of the index-finger of the left hand. During this stage of the operation the hæmorrhage was alarming, and blood was coughed out violently into the operator's face. The patient struggled, and tried to close her mouth. The two strings which were drawn through the anterior nostrils were untied, and held apart, and the nostril plugged from the front with pieces of lint introduced by a director, and secured by tying the double ligature tightly. The ends of these strings, and of that through the mouth, were fastened to the cheek with adhesive plaster. The hæmorrhage was thus fully controlled.

On the fourth day, pus having appeared at the nostril, a solution of chloride of zinc in cold water was injected into the nostril, and when the plug was sufficiently softtened, it was removed. By pulling the string through the mouth, the posterior plug was easily detached.

During her stay in hospital the patient was given light nutritious diet, and muriated tincture of iron was prescribed internally. Under this treatment she perfectly recovered, and was discharged from hospital in a few days.

Case 2.—M. M., aged 60 years, was admitted into the City of Dublin Hospital for excessive bleeding from the left nostril. The patient, who presented a pale anæmic appearance, stated that she was attacked a week previously with the bleeding. The usual remedies were first tried—and having failed, the anterior nostril was plugged with lint. This did not succeed in arresting the hæmorrhage.

Mr. Croly plugged the nose by means of Belloc's sound. Pus appeared at the orifice of the nostril ; on the fourth day the plug was removed, and the nostril syringed with "Condy's Fluid ;" the patient was discharged quite well in a few days.

Case 3.—A. B., a pensioner, 60 years of age, came under Mr. Croly's care for epistaxis, which continued for several days, and resisted all treatment. The patient was very much debilitated, the posterior nostril was plugged by means of Belloc's sound, and the hæmorrhage controlled.

Case 4.—Mrs. ——, aged 36 years, in the last month of pregnancy (one of the causes of epistaxis stated by writers), was seized with bleeding from the right nostril. The ordinary modes of treatment failed to arrest the hæmorrhage, which weakened the patient, and alarmed her very much. She was directed to snuff up a powder consisting of alum and sulphate of zinc. This having proved ineffectual, and the patient becoming very weak, Mr. Croly plugged the nose from the front by the late Surgeon Smyly's plan—viz., slips of lint a foot long and half-an-inch broad were introduced into the nostril by means of a gum-elastic catheter until the cavity was completely filled. The hæmorrhage was thus checked.

Mr. Croly made some practical remarks to the pupils on this important form of hæmorrhage, its various causes and modes of treatment, and pointed out the propriety of not interfering in certain cases in which the bleeding may be salutary, and impressed on them that plugging the nose should not be resorted to until the ordinary methods had proved unsuccessful.

These modes are raising the arm or arms above the head (as recommended and ingeniously explained by Dr. Negrier), cold applied to the forehead and nape of the neck, dry cupping the same region, placing the feet in hot water, directing the patient to snuff up astringent powders, &c.

He then detailed the several steps of the operation of plugging the nose, either by means of Belloc's sound, or an ordinary gum-elastic bougie or catheter, or by the method recommended by the late eminent Surgeon Smyly, of this city, which proved so successful in case 4.

Mr. Croly explained further the advantage of making the plug according to the plan described in case 1, which consists in stitching instead of tying it ; thereby avoiding the hour-glass shape which the plug assumes when tied, and allows the blood to escape into the throat in consequence of not filling accurately the posterior nostril. He also advised that the plugs should not be removed until signs of suppuration are manifested by pus appearing at the orifice of the nostril, lest hæmorrhage should recur.

Mr. Croly also reminded the class that plugging the nostril is not only a troublesome operation, but very distressing to the patient ; and is not unattended with dangerous results. Tetanus and pyæmia have sometimes followed, and the posterior plug in some cases has fallen down on the windpipe ; this dangerous occurrence is to be avoided by tying the double strings *tightly* on the anterior plug, and making the posterior plug sufficiently large. The string through the mouth will be found most useful in withdrawing the plug from the posterior nostril, and will not produce the irritation alluded to by writers, if properly secured by plaster on the cheek.

MATER MISERICORDIÆ HOSPITAL.

SYPHILITIC ENLARGEMENT OF THE LIVER AND SPLEEN.

Under the Care of Dr. HAYDEN.

HENRY C., aged 30, but in appearance much older, was admitted January 15, 1868—not intemperate, has served in the army over twelve years, and of that period passed 11 years and 8 months in India ; whilst there he had intermittent fever, and contracted syphilis of an aggravated character, which has left indelible marks upon him in various situations. In consequence of this his health became impaired, and he was discharged from the service. Four months previous to the date of admittance he vomited up a large quantity of dark clotted blood, and a few days subsequently a much less quantity.

State on admission—patient somewhat thin, but not emaciated ; face slightly bronzed, but not jaundiced ; pulse 100, and weak ; liver much enlarged, descending about three inches below the costal cartilages, prominent, and somewhat uneven on the surface, and tender to pressure ; hepatic dulness extended upwards to within an inch of the nipple, and the right costal cartilages were projected ; spleen enlarged, and firm to the touch ; several large and deep scars, the result of syphilitic ulceration, were visible upon his back and forehead, and likewise upon his legs and thighs, where they had assumed a deep brown colour ; there were also two minute perforations in the soft palate, doubtless of venereal origin ; both testicles enlarged, hard, smooth, and heavy, but free from tenderness; he reported that this enlargement commenced several months previously.

℞. Succi taraxaci, ʒiv.
Acid nitro-hydrochloric, ʒii.
Infusi gentian, co. ʒviii. ℳ.
St. coch. mag. ampl. ter indies.

He subsequently took, three times daily, a pill containing one grain of the green iodide of mercury.

On the 15th of January, iodide of potassium in infusion of cinchona (gr. vi. doses three times a-day) was substituted for the foregoing. On the 21st urgent diarrhœa set in, and continued several days, depite astringent medication of various kinds ; it ceased about the 27th, when the iodide of potassium was resumed, and was continued up to the period of his discharge.

The patient ned flesh, and lost in a great degree the

bronzed tint of face which he presented on admittance; he declared that he felt quite strong and well, and the liver underwent a marked diminution in volume; discharged, January 26th.

Dr. Hayden drew the attention of the class to the interesting features of this case, which he regarded as an example of syphilitic engagement of the liver and spleen. The diagnosis lay, primarily, between hepatic abscess and syphilitic enlargement, the former view being favoured by the long residence in India, the increase in volume, prominence, and tenderness of the liver; the latter, by the history and traces of secondary and tertiary syphilis, the occurrence of hæmatemesis and obstinate diarrhœa; and, finally, the absence of rigors, sickness of stomach, emaciation, and jaundice; the latter diagnosis was confidently made after the patient had been a few days in hospital, and iodide of potassium was prescribed accordingly. The beneficial effects of this treatment were strikingly illustrated in the reduction of volume in the liver, and the restoration of the patient to a state of comparatively good health within a brief period.

Proceedings of Societies.

MEDICAL SOCIETY OF LONDON.

April 20, 1868.

Dr. Richardson, F.R.S., President, in the Chair.

Mr. Davy exhibited a new needle adapted for various surgical purposes. It is so constructed that upon one handle many forms of needle may be fitted. It secures ease and accuracy in the introduction of sutures, and frequent threading is done away with.

Dr. Sansom quoted a case of co-existence of scarlatina and variola in a young lady, aged 26. Five days after a prefatory croyga the rash and throat signs of scarlatina appeared; at the same time occurred violent pain in the back and limbs. Seven days after the initial signs papules of modified variola commenced to appear, and developed in the ordinary way. There was on the ninth day from the commencement the phenomenon of a scarlatinal rash co-existence, with variola in the vesicular stage.

In the discussion which followed, Dr. Rugg, Dr. Leared, Dr. Llewellyn Williams, Dr. Woolfe, Dr. Farquharson, and the President took part. The first speaker alone had met with a similar case, but instances were related of the occurrence of scarlatina with measles, with a vesicular appearance somewhat simulating variola, with the signs of acute rheumatism, and of co-existence of variola and secondary syphilis.

Mr. Browning exhibited a new and improved magneto-electric machine. The magnet employed is circular, and the arrangement of the armature allows the passage of all the positive currents through one wire, and all the negative currents through the other. The instrument is elegant in appearance, very efficient, easy of management, and inexpensive.

The President testified to its value, and mentioned a case of aching of the stomach in which he had found it beneficial.

Dr. Leared had originally employed galvanism in these cases.

Dr. Oppert read a paper on the defects and recent improvements of existing hospitals. He advocated the warming of bath-rooms and water-closets. He suggested the establishment of a central institution for baths, especially medicated ones, for the out-patients of London hospitals and dispensaries; the physicians and surgeons to distribute tickets entitling to the advantages of the baths. He thought the washing in English hospitals greatly mismanaged, and advocated the adoption of the continental system. He eulogised the new Marylebone workhouse.

Mr. Peter Marshall read a paper on bichloride of methylene as a general anæsthetic. The discovery of the anæsthetic properties of this agent was attained by Dr. Richardson, by a process of induction; its qualities are intermediate between those of the gaseous and unstable chloride of methyl and the heavy liquid chloroform. The author described the physical and chemical characters of the new anæsthetic; like other bodies of its class, the boiling point is variable, its vapour is agreeable, and patients generally prefer it to chloroform. For its administration the author preferred a hollow cone of domet or other absorbent material, though Weiss and Dr. Junker's inhalers were valuable. Narcotism to the deepest degree could be induced with three drachms, in short operations one drachm or two drachms being necessary; complete anæsthesia can be induced in three minutes. A sign peculiar to its action is the occurrence of double strabismus.

For its administration a temperature of from 60° to 80° Fahrenheit is to be preferred. Patients submit to its agency quietly, and the delirium takes a "serious" turn. It has been said of patients, that "they groan under ether, swear under chloroform, and under bichloride of methylene they say their prayers;" the advantages of this anæsthetic may be thus summarised:—

Over ether.—More easy of administration, less sense of suffocation; no lividity.

Over amyline.—Less excitement; no collapse.

Over chloroform.—Quicker in action, less exciting, causing no headache nor depression, less chance of vomiting (author had met with vomiting in one in three cases of chloroform administration), anæsthesia more placid, more persistent; causing no rigidity of muscles of jaws.

After some remarks by Dr. Tilbury Fox and Mr. Hainworth,

Mr. Clover urged that as with other anæsthetics, so with this, a definite admixture with air was a desideratum; he had found a difficulty in obtaining the agent in a state of purity, he could not admit that stable substances could have variable boiling points. A specimen which had been sent to him presented the characters of a mixture of chloroform and ether. He approved of the effects of nitrous oxide, though the lividity which it induced gave a rather alarming appearance to the symptoms.

Dr. Sansom hailed the approach of the time when among many anæsthetics, a choice may be made for an individual case. It behoves us to be very cautious before giving up our old friend chloroform. He could not agree with the author's data on chloroform-vomiting. In his experience where chloroform was carefully and progressively administered, vomiting was very rare indeed. From the evidence given, he thought that the bichloride of methylene would be very valuable in dental operations, and those of lesser magnitude. With regard to nitrous oxide, he considered it a dangerous axphyxiant, and he expected, if its use were persisted in, to hear of a case, in which an enfeebled heart could not bear the distension of its right cavities, which the gas "proprio moter" induces.

After some observations by Mr. Davy and Dr. Camps,

The President expressed his satisfaction at the confirmation of his own views as to nitrous oxide; carbonic acid is just as unsafe, animals are very prone to die under its influence, and in America its danger has been proved by many deaths.

SURGICAL SOCIETY OF IRELAND.

27th March, 1868.

(Continued from page 388.)

Mr. Porter, Vice-President of the College, in the Chair.

TUMOUR OF THE NECK.

Mr. H. G. Croly exhibited a tumour he removed from the parotid region and the side of the neck of a woman 46 years of age, on Wednesday last, in the City of Dublin Hospital. The tumour was parotidean in its origin, extending beneath the jaw and behind the lobe of the ear. It had no very deep attachments, and was fourteen years growing. The patient was seen when the tumour was in an early stage of growth by the late Professor Porter, who recommended its removal at that time. The patient, however, would not consent. Three years ago she came under his (Mr. Croly's) care, and he then recommended its removal, but her timidity caused her to shrink from the operation. Hæmorrhage set in from the lower part of the tumour, which became somewhat softened, and it was then determined to remove it. Dr. Barker having made a microscopic examination, informed me that the upper part of the tumour was of a fibrous structure, and the tendency in the lower part of it was to degenerate into a malignant nature. There was not the slightest contamination in the glands, and from the great length of time the tumour had been growing, the return of it was not to be apprehended.

Mr. Richardson read a communication from Dr. Duggan, of Lackagh, on a

CASE OF NECROSIS OF THE TIBIA.

"Gentlemen,—I beg to place under your observation the

accompanying pathological specimen of necrosed tibia, which, I think, is rather rare, from the fact that nearly the whole shaft in its length and circumference was removed. The leading features and history of the case are these: I was called on the 28th of January last to visit a little boy aged nine years, who was suffering from necrosis of the tibia for the last two and a-half years. The poor little fellow was very much reduced, emaciated, and ill-fed. The general aspect of the leg was just what is ordinarily observed in this affection.

"Minute sequestræ, or an 'insensible exfoliation,' came away from time to time, through the burrowing and fistulous sinuses that pervaded through the soft parts. From the constant drain and irritation the child was very much weakened.

"About four inches above the ankle I observed a large orifice leading down directly to a corresponding cloca in the bone, which was about an inch apart from a similar one superior to the former. Having then passed a firm probe into each orifice, I detected by a to-and-fro motion that the dead bone lay floating beneath. Accordingly, I did not hesitate in operating, and at once cut down through the soft parts, and with a well-suited curved bone pliers, divided the isthmus between the clocæ, making a rather longitudinal orifice. A smart welling of venous hæmorrhage took place, which ceased a little by elevating the leg for a few minutes, by the aid of a rough-toothed duck-billed forceps. I very cautiously and with some difficulty removed this diseased shaft of the tibia. You will at once perceive that it is very nearly a complete necrosis of the whole shaft and circumference, the child being only nine years old.

"I have merely placed this under the notice of the society, because some days ago Mr. Mason laid before the London Medical Society the case of an adult from whose leg was thrown off about four inches of diseased tibia in its entire circumference, and which he considered a rare pathological specimen. My patient is doing very well ever since, and gradually regaining health and vigour.

"JOSEPH DUGGAN, Surgeon,
"Medical Officer Turloughmore Dispensary,
"County Galway."

The CHAIRMAN expressed the thanks of the Society to Dr. Duggan for his communication. He had often thought it a matter of regret that their professional brethren in the country did not more frequently send their communications, or come more frequently to their meetings, where they would always receive a hearty welcome. No doubt their avocations prevented them from coming often to town, but it was most desirable that any of them who met with cases of interest, should send the particulars of them to the Society.

Dr. BENSON—As one of the oldest Secretaries of the Society, I wish to express my concurrence in what has fallen from our Chairman. It is the most anxious wish of the Council of the Surgical Society to get papers from the country.

GUN-SHOT INJURY OF THE ORBIT.

By MR. WILLIAM STOKES.

There is nothing of wounds of the eye or orbit which are of greater interest and importance, and, therefore, better entitled to careful consideration on the part of the surgeon, than those resulting from gunshot injuries, and the particulars of the case which we shall presently discuss, affords another remarkable example of the great frequency with which the eye and the adjacent structures are injured, when only a single shot strikes a person. This singular liability of the eye being so frequently the seat of these injuries, has been noticed by Mr. Cooper and other writers, on injuries of the eye; of these, that which is produced by the bursting of a gun, and the lodgment of a portion of it in, or in the immediate vicinity of the orbit, is obviously the most formidable accident, and, in truth, the fact of the gunshot injury in the case we are about to discuss, not having terminated fatally, is in itself a matter of no small surgical interest.

Records of a few similar cases are to be found. One in which the result was like mine, favourable, is mentioned by Mr. Wm. Cooper, in his admirable work on injuries of the eye. The particulars of the case are quoted in Beck's Medical Jurisprudence. The case was one of a man who had his eye blown out by the bursting of a gun. The surgeon dressed it, and on the second dressing he perceived something hard among the injured substance of the eye. He found this to be metallic, and getting hold of it with his forceps, pulled it out, when to his surprise he found it was the breech of the gun which had been forced backwards by the recoil, and been jammed into the orbit. Notwithstanding this extensive injury which annihilated the eye, the man made a perfect recovery.

Dr. Keith, the deservedly eminent surgeon of Aberdeen, has also recorded a remarkable case of this sort, in which the breech of a gun was lodged for four months below the right eye, and across the nose.* The patient, James S., æt. 19, stated that while shooting on the morning of the 19th February, 1857, on the sea cliff near Aberdeen, his fowling-piece burst. "He stood stunned for a minute, and then fell on the ground quite insensible, and so continued for about half-an-hour. When consciousness returned he found himself in a farm-house, and then in the course of another half-hour was seen by a surgeon. He had bled very freely all this time from a large and deep wound in his face between his eyebrows, and just below that level into the very root of his nose. The wound extended from below the right eye across the root of the nose, and into the left orbit, lacerating the lower eyelid, and utterly destroying the left eyeball. The bones of the face proper seem to have been so far separated from the os frontis, that the patient is positive the surgeon applied one hand under his chin, and the other on the crown of his head, and pressed them forcibly together." On June 25, four months after the accident, the foreign body was successfully extracted by Dr. Keith. Before doing so the nasal bones had to be widely separated, and the piece of metal, which proved the breech of a fowling-piece, weighing two ounces and five drachms, and measuring two inches and a half in length, was extracted. The thick or saw bolt end entered first, and penetrated so far as to allow the very tip of the screw plate to be covered in by the skin of the nose. There was no profuse hæmorrhage during the operation. The case ultimately did very well, and an artificial eye having been adjusted, it was "difficult to discover that anything very serious had ever befallen him."

A somewhat similar case is detailed in the *Edinburgh Medical Journal*, for September, 1856, by Dr. James Young, of St. John's, Newfoundland. In this case the foreign body, which was a large coarse breeching of a common musket, was lodged in the right superior maxilla, and after remaining there for a period of eight years, was removed by Dr. Frazer, and the case ultimately did well.

A case in which this accident occurred, was under observation in the Richmond Surgical Hospital many years ago, under the care of the late Dr. Hutton. The case terminated fatally, as might well be expected, from the extensive nature of the injury, and the preparation of the fractured bones of the face and head, as well as the missile, are carefully preserved in the Pathological Museum which is attached to the hospital. The injury was caused by the bursting of a gun two hours previous to the patient's admission into hospital. A portion of the breech of the gun struck him over the superciliary margin of the left eye, producing a compound comminuted fracture of the skull. Several splinters of bone and portions of the stock of the gun were driven into the brain. We learn from the description of the preparation in the catalogue of the museum, that when he was admitted into hospital, the patient had rigors, the surface of the body was cold, pulse slow and weak, the respirations were sixteen per minute, and unaccompanied by stertor. He answered questions rationally, but in monosyllables. A profuse hæmorrhage followed the removal of some of the splinters of bone and wood from the brain. Symptoms of delirium set in shortly after the patient was admitted, and he was obliged to be forcibly restrained. Seven hours after admission his pulse was 70 per minute, and respiration without stertor. Upon the morning after the occurrence of the accident, he had delirium ferox; his pulse was 120 and feeble; he screamed so as to be heard in all parts of the hospital; his pulse rose to 150, and he died in thirty-six hours after the receipt of the injury. "The pupils were never unnatural throughout, and he had no convulsions; the left nostril was insensible to the most pungent odours." As this case is one of such absorbing interest, I feel that no apology is necessary for giving so many of its details, described as they are so graphically by my colleague Dr. N. W. Smith.

Any record, however brief, of this class of injuries, would be obviously incomplete, without reference to the celebrated case of Lieutenant Fretz, to which reference has been made by several writers, and the full particulars of which are given at length by Sir James Simpson, in his work "On Acupressure," as a case strikingly illustrative of the tolerance of living structures for the presence of metallic bodies. Sir J. Emerson Tennant in his work "On Ceylon," thus describes this classical case:

* *Medical Times and Gazette*, Oct. 23, 1858.

"Among extraordinary recoveries from desperate wounds, I venture to record here an instance which occurred in Ceylon to a gentleman while engaged in the chase of elephants, and which, I apprehend, has few parallels in pathological experience. Lieutenant Guard Fretz, of the Ceylon rifle regiment, while shooting at an elephant in the vicinity of Fort MacDonald, in Oorah, was wounded in the face by the bursting of his fowling-piece, on the 28th January, 1828. He was then about 32 years of age. On raising him, it was found that part of the breech of the gun, and about two inches of the barrel, had been driven through the frontal sinus, at the junction of the nose and forehead. It had sunk almost perpendicularly till the iron plate, called the tail-pin, by which the barrel is made fast to the stock by a screw, had descended through the palate carrying with it the screw, one extremity of which had forced itself into the right nostril, where it was discernible externally, whilst the headed end lay in contact with his tongue. To extract this jagged mass of iron thus sunk in the ethmoidal and sphenoidal cells was found hopelessly impracticable; but, strange to tell, after the inflammation had subsided, Mr. Fretz recovered rapidly, his general health was unimpaired, and he returned to his regiment with this singular appendage firmly imbedded behind the bones of his face. He took his turn of duty as usual, attained the command of his company, participated in all the enjoyments of the mess-room, and died *eight years afterwards*, on the 1st of April, 1836, not from any consequences of this fearful wound, but from fever and inflammation brought on by other causes. So little was he apparently inconvenienced by the presence of this strange body in his palate, that he was accustomed with his finger partially to undo the screw, which, but for its extensive length, he might altogether have withdrawn. To enable this to be done, and possibly to assist by this means the extraction of the breech itself through the original orifice (which never entirely closed), an attempt was made in 1835 to take off a portion of the screw with a file, but after having cut it three parts through, the operation was interrupted, chiefly owing to the carelessness and indifference of Captain Fretz, whose death occurred before the attempt could be renewed. The piece of iron, on being removed after his decease, was found to measure 2¾ inches in length, and weighed two scruples more than two ounces and three-quarters."

This remarkable case is also alluded to in Mr. Guthrie's "Commentaries on the Surgery of the war," and the full particulars of it were detailed to the Surgical Society of Ireland on January 18, 1845, by Dr. O'Callaghan, then surgeon to the 11th Huzzars. In the discussion on this case the late Sir P. Crampton, who presided, alluded to another case detailed by Mr. Rogers in one of the earliest numbers of the Medico-Chirurgical Transactions in which the breach of a gun penetrated the cranium, about the centre of the os frontis, lodged, and continued to remain in the substance of the brain, yet no one had any idea that any extraneous substance existed there until after six weeks, when a black, hard body appeared in the wound, which, when extracted, proved to be the breech of a gun, and which weighed several ounces. The man recovered perfectly without any loss of his faculties.

In the following case which came under my observation, the deformity was produced in precisely a similar manner, but in consequence of the alteration in the direction, the portion of the breech of the gun, striking, in the first instance, the superciliary ridge, its direction was altered, and it took a course downwards and inwards, and passing through the floor of the orbit, was finally lodged in the nasal fossa. The patient was thus saved from the consequences which would, in all probability, have proved fatal, as they did in the preceding case. The foreign body was successfully extracted about a week after the accident with much difficulty to the operator, and great pain to the patient—

Neil Ruddy, æt. 47, was admitted into the Meath Hospital on the 20th of January, 1865, having been recommended to me by my friend Mr. Henry Wilson. A glance at the accompanying chromo-lithograph, taken from a drawing executed by the late Mr. Connolly, gives a fair idea of the deformity under which this patient suffered, and also of the foreign body which was taken from the nasal fossa in which it had lodged. No trace could be found of the eyeball, which had apparently been completely enclosed, and at the lower and inner portion of the floor of the orbit, there was a large, somewhat circular or tubular, passage, about an inch and a-quarter in length, leading downwards, and to the floor of the right nasal fossa. There was no evidence of any diseased bone. The patient's health was very good, but he was greatly distressed by the continual draught of cold air passing through the passage leading from the orbit to the nasal fossa, and which rendered him liable to repeated influenzas. The patient's great desire naturally was, therefore, to have some operation performed which would have for its object the permanent closure of the passage, and consequent exclusion of the air. Considering that a plastic operation would have the desired effect, and my colleagues also fully concurring in this opinion, I recommended it to the patient, and he willingly complied. The operation was accordingly performed on January 22. I commenced by vivifying the edges of the eyelid, the upper portion of which was found drawn back, and adherent, to a great extent, to the roof of the orbit, with Langenbeck's two-edged bistoury, an instrument specially designed for vivifying the edges of the palate in staphylorraphy and rhinoplastic operations. This being done, I proceeded to transplant a piece of integument from the forehead, in order to cover in the defect. A portion of integument, somewhat oval in shape, and about two inches in length, was brought from above and to the inner side of the eyebrow down, covering the defect and made adherent to the vivified edges of the eyelids by numerous points of interrupted iron sutures. The operation, although it can thus be described in very few words, was an extremely tedious one, as those who are familiar with the practical details of plastic operations can, I am sure, fully understand.

Three weeks after the operation, the flap having become firmly united, and the wound in the forehead being completely healed, the patient left hospital and returned to the country. The drawing, by Mr. Burnside, of which a chromo-lithograph is annexed, showing the result of the plastic operation, was taken by Mr. Burnside twelve months after the operation.

I think the preceding case is well worthy of record in a two-fold point of view: in the first place, as affording an example of what is fortunately a very rare surgical injury, and also its being strikingly illustrative of the good results which may be obtained in such cases by plastic surgery.

Mr. TUFNELL observed that he had seen a case of injury arising from the bursting of an old gun which gave rise to necrosis. There was a fœted discharge of so intolerably offensive a nature that, although the individual lived for a number of years, he was obliged to withdraw from society, and, in fact, to become a hermit.

Professor MORGAN said that he had seen in the Queen's County Infirmary, a case of the kind referred to by Mr. Stokes, where the accident happened to a man who was out fowling with an ordinary percussion gun. The part which gave way was the hammer, and a portion of the breech to which the hammer was attached, about half an inch long, so that in fact the hammer was at right angles to the piece to which it was attached. It was lodged firmly in the os frontis, and a post-mortem examination showed that it had penetrated one of the anterior lobes of the brain. This man was carried home after the accident, remained at home about a fortnight, and came to the Queen's County Infirmary complaining of the point of the hammer that was projecting beneath the skin. It was proposed to get him into the Infirmary and try if this could be removed. He refused, however, and went home, but shortly afterwards his friends sought admission for him. Alarming symptoms had come on, and in the meantime, fiddling with the hammer, the man himself extracted the whole of the foreign body. He came into the Infirmary suffering from symptoms of abscess in the brain; he had violent rigors alternating with symptoms of insensibility, and he died within a month of the time from the occurrence of the injury. It was found that the piece of iron went through the frontal sinuses, that it had broken down the internal table of the skull, and got into one of the anterior lobes, causing the formation of an abscess about the size of a small orange in the interior of the brain. It must have been lodged at least half an inch in the lobe of the brain for a fortnight without giving rise to any serious symptoms.

Mr. WILSON said he could fully corroborate Mr. Stokes' statement as to the condition of the patient on whom he had operated so successfully. He had an opportunity of seeing the man when he first came to Dublin, and, as he did not engage in general surgery, he handed him over to the care of Mr. Stokes. It was an operation doubtful as to its success from the large extent of the cavity, and from the fact that it was difficult to find support for the margins of the wound carrying the sutures. You could look down into the nasal cavity,

especially with artificial illumination, and he thought the successful manner in which the deformity had been removed reflected the greatest credit on Mr. Stokes as an operative surgeon.

Dr. KENNEDY said there was one medical point in connection with Mr. Stokes' cases to which he wished to refer. The subject of aphasia had of late attracted much attention. But though many papers had been written about it, he could not remember that any one of them alluded to the effects of injuries close to the orbit, and at the same time implicating the brain. Yet, if there were any cases likely to establish the theory, for it could not be called more than a theory, that a certain portion of the left anterior lobe presided over the faculty of speech, it was these very cases. Some such he had a distinct recollection of having read. In these, however, the injuries arose from stabbing wounds perforating the orbital plate. In the case under the care of the late Dr. Hutton it was observable that while the patient could speak it was only in monosyllables.

Mr. STOKES said, in reply, that with regard to the liability occurring from injuries such as he had described, he could quite conceive how such a morbid condition might be induced, but in the case which came under his notice there was no evidence whatever of the disease having been induced by the accident; nor, indeed, was it noticed by any of the writers he had mentioned. He thought Mr. Tufnell having met with it was a matter of great interest. Had he known of the case described by Dr. Morgan he would certainly have mentioned it. The late occurrence of any affection of the brain after the receipt of such an accident was a point of much interest. A somewhat similar case was mentioned in the Surgeon-General's report of the surgery of the late American war. A man who had received an injury of the orbit was admitted to hospital, the wound granulated and healed up, and the man was discharged. Four months after the receipt of the wound the patient died. While walking one day in the street he suddenly became comatose, and died in a quarter of an hour afterwards. On making a post-mortem examination the ball was found lodged in the anterior lobe of the brain surrounded by an abscess.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 6, 1868.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THIS important election has terminated in favour of Mr. JOHN ADAMS, of the London Hospital, by an overwhelming majority. This result will surprise no one, notwithstanding the insinuations and suggestions put forward by certain journalists.

We yield to none in our sincere desire to see the college undergo reform. No one has spoken more plainly than we have against mere seniority being allowed to override all other claims. But we cannot possibly allow that seniority is in itself a disqualification for office, and we do not carry our warfare against seniority so far as to make us insensible of the merits of the senior Fellows.

A cry has been raised for more practical examiners, especially in anatomy. Now, Mr. ADAMS is not only a distinguished hospital surgeon of many years standing, but he is a very experienced teacher of anatomy. If not the oldest anatomical lecturer in the kingdom, he certainly is in the metropolis. For a whole generation and more he has taught anatomy, and from considerable experience we are inclined to think he is the most popular living teacher of that science. The idea of passing him over in order to select an anatomist from those lower in the list, could only have arisen in the mind of a person utterly ignorant of the position of the parties in the educational world, and, therefore, unfit to pronounce an opinion on the subject. The suggestion, therefore, was not only uncalled for, but impertinent. Our own views have been so frequently expressed, that in saying this was scarcely an occasion on which to run a tilt against seniority we incur no risk of causing any misunderstanding, and by acknowledging claims where they exist, we hope to gain more influence when we may feel compelled to speak in a different sense.

In congratulating Mr. ADAMS on his election by such a majority (17 to 4) we cannot help expressing our trust that he will always be found on the Liberal side.

From his antecedents we have every reason to hope that the profession will be satisfied with the manner in which he will discharge his duties. He comes to the Council, indeed, unpledged to any radical measures, but those who know him best feel sure that he will give every question an impartial consideration, and the liberal sympathies he has always evinced on general subjects furnish us with a criterion by which we may judge that liberal measures at the College will have his support.

ON MEDICAL HOODS.

IN our last number we gave an account of the visit of H.R.H. the Prince of Wales to the Colleges of Physicians and Surgeons in Dublin; and, in describing the visit of H.R.H. to the former College, we particularly noted the fact that the Fellows of that ancient Society wore the usual gown of an M.A., with the hoods of their several degrees.

Although not a matter concerning the public health, yet as an historical question, perhaps it may not be amiss to give our readers some information about these hoods, seeing that, even among well-informed persons, their ancient history and modern significance, are shrouded in almost complete obscurity.

The cowl or hood, in ancient and more correct Latin *cucullus*, and in mediæval monastic Latin *caputium*, was, and still is among some monastic orders, a covering for the head to protect it from the inclemency of the weather. It was a habit among the ancient Romans, being a coarse covering for the head, broad at one end for the head to go in, and then lessening gradually until it terminated in a point. It was thrown back on the shoulders when not in use. It is alluded to by Martial (Epigr. 14, lin. 6), and by Juvenal (Sat. 8, v. 145), and by other Latin writers.

This covering was worn by all classes without distinction; and its peculiar suitability for concealing the features, led to its adoption by monks and ascetics at a very early time in the history of the Christian Church. The ordinary dress worn in these times (and which, with slight modifications was continued in all civilized nations, to a compara-

tively late period), was the *cassock*, a garment with tight sleeves, which covered the wearer from the neck to the ankles, and which was conveniently fastened to the body by a girdle round the waist; and over this the gown and hood. The hood was sometimes attached to the gown, and sometimes separated from it, as we see in the elegant and graceful cloaks worn by some of the Irish peasant women at the present day. The cassock, which, when thrown open, became the modern coat, was the indoor dress, and, with the gown over it, was worn out of doors, and in cold weather.

The modern representative of the gown and hood in ordinary dress is the cloak with cape, or the over-coat. None of these were exclusively clerical dresses; but the clergy, on the conservative principles which have distinguished them at all times, continued to wear them when others had given them up; just as they wear white neckcloths now when their ordinary use has been discontinued by the mass of the laity. As the monastic orders multiplied and formed themselves into distinct orders, their hoods assumed a different fashion in cut, colour, and material. From the monks this difference passed to the cathedral and collegiate churches, and from them to the universities; so that at present the hood, varied in shape, material, and colour, is but a badge of distinction, serving to point out the academical degree of the wearer.

The use of the hood in ecclesiastical ministrations is enjoined by laws still in force on the clergy of the United Church of England and Ireland—(See Charles's "Irish Church Directory," for 1868, page 157.) That great authority Du Cange thinks that a part of these hoods, which originally fitted on the head, was afterwards detached, and finally became the square cap now worn in all colleges. A glance at old pictures, and even at common pictures of "the judicious Hooker" and George Herbert, will show the accuracy of this supposition. The stiff pasteboard part of the square cap is a comparatively modern addition to it.

The hoods of the University of Dublin are mostly the same, and we believe ought strictly to be identical with those used at Oxford. The hoods of the Queen's University are identical with those in use in Dublin. These are single or double. A single hood is a simple *cucullus* or *caputium*; a double hood is this, *plus* a cape covering the shoulders, and we see the "proper thing" worn every day by our judges. Correctly speaking, the inferior graduates ought to wear single, and the superior double hoods; but this distinction is now frequently overlooked, and bachelors sometimes wear a hood shaped, but not coloured, like that of a doctor.

The very general custom of wearing these hoods suspended over the glutæi maximi muscles, instead of wearing them on the shoulders is a vulgar innovation of ignorant robemakers, as may be seen by a look at any old picture (that of Sir P. Dun, by Kneller, in the Dublin College of Physicians for instance). The hood should be brought over the shoulders and hooked or buttoned on the chest like a cape; the long string ought to be wholly disused, for a hood is a covering for the head, not for the posteriors. Also the practice, which very lately has found countenance in Trinity College, Dublin, of doctors wearing their scarlet robes without their hoods, is incorrect. The hood is an integral part of the robe, which ought to be loosely closed in front by one button over the sternum, and have the hood for a cape and shoulder ornament, as we see it worn by judges and other officials. The facings of the robe ought to meet in front, and not be worn widely apart, as is now the general, but incorrect custom. In Dublin, and in Oxford, all doctors, except doctors in music, wear scarlet gowns and hoods with various coloured facings, according to the faculty. In Cambridge the D.D., LL.D., and M.D. hood is the same, we believe, while the distinction is in the gown. The real *full* dress of a doctor (and it may be seen at Dublin on Commencement days, as worn by Sir Joseph Napier, not as Vice-Chancellor, but as LL.D.), is a *cope*. This is not an exclusively ecclesiastical dress as many suppose, and it differs entirely from the chasuble, which is a strictly clerical ornament. The Scotch Universities, before the revolution of 1688, had curious hoods which have long disappeared, and which, after a considerable interval, during which there appears to have been little or no regular academical dress in Scotland, have been replaced by adopting hoods from the English Universities. Thus the Edinburgh D.D. wears the black and white hood of a Cambridge M.A. *non regent;* while the Edinburgh, and, we believe, the St. Andrews M.D., wears the handsome black and scarlet M.A. hood of Oxford, which is the same as that worn by an M.B. in Dublin. Before the revolution of 1688 the hoods of Aberdeen were the same as those of the University of Paris; St. Andrews as Louvaine; and Glasgow as Bologna; but since the European revolution, which began in France in 1789, Paris alone retains its ancient distinctive hood.

There are two new hoods recently adopted in Dublin University for new degrees—a Master in Surgery wears scarlet, bound with blue, and lined with white; and the Master in Engineering wears white tabinet, lined with green silk.

Notes on Current Topics.

Public Health.

THE weekly return of the Registrar-General is again in our hand, from which we find that the deaths registered in London, and in thirteen other large towns of the United Kingdom, were 2975 in the week ending on Saturday the 25th April, while the births amounted to 4758 in the same week. The annual rate of mortality was 24 per 1000 persons living, and the proportion was as follows:—23 per 1000 in London, 29 in Edinburgh, and 29 in Dublin; 23 in Bristol, 19 in Birmingham, 24 in Liverpool, 26 in Manchester, 30 in Salford, 24 in Sheffield, 25 in Bradford, 23 in Leeds, 15 in Hull, 25 in Newcastle-upon-Tyne, and 30 in Glasgow.

The deaths registered in London during the week were 1378, being less by 53 than the estimated amount, and 161 less than the number registered the preceding week.

The deaths from zymotic diseases were 278, the corrected average number being 315; 14 deaths from smallpox, 51 from measles, 27 from scarlatina, 4 from diphtheria, 57 from whooping-cough, 46 from fever, and 12 from diarrhœa were registered.

In the whole of London the deaths from fever were at the annual rate of nearly 8 in 10,000 persons living. 165 deaths occurred from phthisis, 169 from bronchitis, 68 from pneumonia, 70 from diseases of the heart, and 190 from diseases of the brain and nervous system. 2 persons died from intemperance, 4 from burns or scalds, 3 were drowned,

9 committed suicide, 9 were suffocated, and 2 killed by horses or vehicles in the street.

Annual Report of the Registrar-General.

THE notes and observations of Dr. Farr on the causes of death contained in the Registrar-General's Report for the year 1866, comprise many important particulars, which we judge will be interesting to our readers, and of which we give the following abstract. It will be remembered that the weather at the commencement of that year was very unpropitious, which, in connection with the cholera epidemic raised the death-rate above the average. It was found to be 23·6 per 1000 of the population, the average being not more than 22·4. The deaths registered in 1866 were 500,689. Of these 4993 were returned with no cause of death assigned, or a very indefinite one, and 3585 as "sudden death" or "found dead," making in all 8578 cases for which no specific cause was given.

From the report it is seen that 115,972 deaths or 23 per cent. of all the deaths with specified causes, were attributable to *zymotic* diseases; the proportion being 5·52 in every 1000 persons living, which is above the average annual rate of the previous fifteen years. *Miasmatic* diseases proved fatal in 110,059 instances, which is larger than the number registered in 1865, while the mortality from *enthetic* disease has been gradually on the increase from an average of 62 per million to 94 in the fifteen years, 1850-65, which was slightly decreased in 1866. Nearly a similar increase was presented in the *dietic* class of disease, but the *parasitic* group varied in average mortality.

In examining the returns of some of the more prominent diseases included under these heads, we find that small-pox, whether from disregard of danger or neglect of vaccination, has been much more fatal since 1862. The numbers were 81 per million that year, but for the four subsequent years they were respectively 293, 373, 309, 144. Measles in 1866 proved fatal in a larger number of cases than usual. The deaths from scarlatina and diphtheria were excessive, though less than in some previous years. Whooping-cough destroyed twice as many lives as in either of the two years before. The mortality from typhus was higher than in any year since 1854. The deaths from diarrhœa were 17,170, and from cholera 14,378, while those from syphilis have been increasing in regular progression from 957 in 1857 to 1662 in 1866.

There is but little variation in the death-rate from constitutional disease. The mortality from gout and cancer appears on the increase, and on the decrease from dropsy. Phthisis gives 55,714 deaths, which, together with 66,489 from bronchitis and pneumonia, form the largest proportion of the deaths registered in 1866. From local diseases there were 192,444 deaths; from old age, 28,546; from atrophy and debility in old and young, 31,097; and from violence of every kind, 16,915. In reference to the latter Dr. Farr remarks:—"Street accidents from horses and carriages kill more people in a year than railways; and falls of stone, and other substances which knock men on the head one by one in mines, are much more fatal in the aggregate than explosions."

Famine-Fever.

ACCORDING to official statements in the sixteen districts of Western Prussia, visited by famine, 3950 persons have been attacked with typhus-fever, of whom 1307 died, 2701 recovered, and 795 are still under treatment. The districts which have been most afflicted with the disease are Lötzen, 1307 persons attacked, 145 deaths; Johannisberg, 547 attacked, 84 deaths; while in the district of Heydekrag, in the midst of the other districts, not a single person fell ill.

Poor-law Medical Service of England.

WE present our readers with so full a report of the proceedings of the important meeting to which we last week devoted a long leading article, that they will not be disappointed at the brevity of our comments on this occasion. The meeting was undoubtedly one of the most important demonstrations that our oppressed Poor-law brethren have ever made. It is not surprising that Dr. Rogers should have been triumphantly re-elected President of the Association, and from what transpired, we may well hope that the meeting of London and Provincial Poor-law Medical Officers that he has announced may be a still greater success.

British Home for Incurables, London.

THIS institution, which is situated at Clapham-rise, is intended for the reception of approved candidates who are suffering from apparently incurable physical disease, as contra-distinguished from the incurably insane. There are two modes of admission, one by election, the other by payment of a sum equal to the cost of maintenance. The best medical advice is secured. Some may be wholly, and all are partially relieved, while comfort and succour in their outward circumstances are afforded to all who can avail themselves of the aid offered by this charity. It was founded in 1861, and held its anniversary in Willis's Rooms on the 29th of last month. Lord Carnarvon presided on the occasion, and powerfully pleaded on behalf of the home.

King's College Hospital, London.

THE anniversary dinner to aid the funds of this establishment was served on the evening of the 24th ult., at Willis's Rooms, King's-street, St. James's. The chair was taken by Mr. W. H. Smith, supported by a number of eminent gentlemen, among whom we may mention Sir W. Fergusson, the Dean of Westminster, Professors Plumptre, Johnson, Beale, &c. This is the only hospital within the limits of St. Clement Danes and the adjoining parishes which contain a population of 400,000, while patients, constantly on the increase, are also received from all parts of London. Last year, relief was afforded to 1781 in-patients, to 31,958 out-patients, and to 691 poor married women at their own homes. A strong appeal was made for subscriptions to increase the funds, and a sum amounting to upwards of £2000 was contributed during the evening.

St. Mark's Hospital, London.

ON Monday, 27th April, this hospital celebrated its thirty-third anniversary at the London Tavern, Bishopgate-street. The chair, in the absence of the Lord Mayor, was taken by Mr. Alderman Cotton. This is a most valuable institution, being established for the cure of fistula, prolapsus, and other diseases of the rectum. According to the statement of the chairman in proposing success to the hospital, it was customary before its foundation for other hospitals to send home patients afflicted with such diseases to die, but now, by the efforts of this society, they were sent home to live. Last year 1268 patients were admitted, 736 were

discharged cured, 218 were relieved, and 244 were still under treatment. There is room for 50 beds, but only 34 were made up in consequence of want of funds. One thousand guineas were subscribed in the course of the evening.

Earlswood Asylum.

THERE is a vacancy for a resident physician at this institution, Dr. L. Down retiring after ten years' service. We understand that those employed in the institution have taken advantage of this occasion to express to Dr. and Mrs. Down their great respect and esteem. Dr. Witherby is a candidate for the appointment.

Thankless Doctoring.

A GRAND result, the first towards the emancipation of the profession from the gratis-work system which consumes the personal energies and incomes of a great proportion of its members, has been effected by the united action of the Medical Officers of the Birmingham General Dispensary. It will be remembered that the claim for a small remuneration for the services to the poor which, for 15 years they had gratuitously discharged, was refused by the committee, although, as a matter of fact, the dispensary is so rich that the committee cannot dispose of the funds. Thereupon the Medical Officers resigned unanimously, and by since steadily adhering to their very proper and determinate course, have driven the committee to the necessity of appointing paid officers. Of course the late medical officers will be excluded, but they have gained a professional victory of the highest importance, and, by the same act, relieved themselves of thankless and onerous labours. We do not believe that the Birmingham General Dispensary can ever be worked by paid residents as efficiently as by the late staff, and we shall not be surprised, nor shall we thank them, when the committee are driven willy-nilly to accept the paid services of these gentlemen.

London Slaughter-houses.

No subject relating to the sanitary condition of our large towns is of more importance than the state and position of their slaughter-houses. Such places are undoubtedly necessary, for meat we want and must have. But there is no reason whatever why they should be suffered to be openly offensive, to generate disease, and to add to the virulence of those epidemics which, in unhealthy seasons, unhappily invade us. And yet it appears that within the bounds of the city alone there are fifty-eight of these places, in each of which from 60 to 120 head of cattle are killed weekly, and how many more of them there are in the adjacent suburbs it is impossible to say. No one who has looked into them can fail to perceive their obnoxious character; while, in addition, the difficulty of disposing at once of the blood, and fat, and offal, must without doubt render them a nuisance to any neighbourhood where they are found. The evidence of the Medical Officers of Health is decisive on this point; and it ought to be a serious question with the authorities of London especially, why such places are suffered to exist amongst us in their present form. Our continental neighbours have long ago come to a decision on the subject, and in the larger towns and cities of Scotland the inhabitants have banished them from their midst. How is it, then, that in London, the largest and the proudest city in the world, we are so reckless of propriety and health? True, there is at present no law which can touch the nuisance. Dr. Letheby, in 1866, said the Nuisance Removal Act does not apply to it, and nothing has been done since. But are there no persons sufficiently influential to put down all opposing and selfish interests, and to rid the metropolis of an evil so extensive, so prejudicial, and so disgraceful? Surely some means ought to be originated with a view of accomplishing this object.

Professor Roscoe's Lectures on Spectrum Analysis at Apothecaries' Hall.

ON Saturday last, at 2 P.M., Professor Roscoe, as previously announced in the MEDICAL PRESS AND CIRCULAR, gave the first of his course of six lectures at Apothecaries' Hall. The great hall was crowded with an assembly which listened with the greatest interest to the learned Professor's lecture. His subject is spectrum analysis, and his beautiful experiments drew forth frequent bursts of applause.

We congratulate the Apothecaries' Society on the success of their experiment to introduce a series of lectures, and we sincerely hope the plan may be extended and continued. They have every facility—a good hall, plenty of means for experimental demonstrations, and they may calculate on the good-will of every one interested in the progress of physical science.

The only inconvenience was the great heat on account of the size of the audience. If a little more ventilation could be introduced, it would be the only improvement we can suggest.

The fame of Professor Roscoe was sufficient to ensure the audience, but we cannot do other than thank the Society for the opportunity he had of bringing his favourite study before the profession, and their officers for the comfort they ensured by their arrangements.

Trade Dishonesty.

THE deliberate swindling conducted as a matter of daily habit and use by a certain class of tradesmen, in the matter of false weight, has been met in the most forcible manner by the praiseworthy and courageous conduct of some of the less conspicuous but more reliable of the London journals, by giving publicity to the names and addresses of those convicted of false weight cheating, and we observe with pleasure that the first step in an equally required and as useful reform in the matter of adulteration has just been taken. A baker named Smith has been convicted at Winchcomb petty sessions on the evidence of Mr. Horsley, the county analyst, of putting alum in his bread, and was fined £8 and costs.

If vestries and town councils were less culpably negligent in the discharge of the duties for the detection of adulteration, which the Legislature has unfortunately confided to them, the deliberate cheating which tradesmen defend as one of the necessities of competition, would be impossible. The conduct of the South London papers in honestly exposing, at the risk of making enemies, the persons guilty of these frauds compares most favourably with that of certain of the Dublin papers, who have gone so far in the race for popularity as to publish elaborate editorial defences of tradesmen in the suburbs who were brought to justice by the police for an exactly similar offence. Every trade friend so gained is compensated for by the loss of the confidence of a dozen of the public.

Public Immorality.

WE may call attention to a breakfast and conference to be held at Freemasons' Hall, Great Queen-street, W.C., tomorrow (Thursday), May 7th, in connection with the

working of the "National Association for the Suppression of Public Immorality."

The subjects proposed for conference upon this occasion are :—

1st. The best means for enforcing the law designed to check the public solicitation by prostitutes, in the streets of the Metropolis and provincial towns and cities.

2nd. To enforce the law designed for the suppression of houses of ill-fame, &c., in the Metropolis and provincial towns and cities.

The object of the National Association is to suppress, by every lawful means, the public exhibition of vice, and it is proposed to form branches in various towns.

The following statement issued by the Association displays the need for its operations :—

"It cannot be too widely or plainly known that prostitution has long since assumed all the phases and conditions of a *regular traffic*. Strange and even startling as the statement may appear, it is nevertheless a fact, that its organization is found to possess importers and exporters, procurers and procuresses, a species of literature and fine arts in the shape of grossly obscene books and photographs, in addition to the various plans and agencies necessary for carrying on this revolting trade. Another feature, perhaps still more destructive to the morals of the young, is the known existence of houses of ill fame, which serve the double purpose of brothels and 'reception houses,' where the youthful are encouraged and harboured with a view to their *immediate ruin*. Every facility is offered by the keepers of these dens of infamy to young creatures who are temporarily estranged from family and friends, or who may be in homeless or indigent circumstances. It must also be added, that this monstrous traffic is highly remunerative, and that many are known to be making large sums of money by keeping up a constant supply to feed its diabolical demands.

"Glaring and scandalous as the daily open exhibitions of immorality have become, its alarming progress would cease to excite surprise if the various ready facilities which are offered for the introduction to a life of shame were thoroughly understood by the public. Moreover, it is found that, notwithstanding the hundreds of young women who are annually rescued from the streets through the instrumentality of Refuges and Reformatories, the number still pursuing a life of shame and moral destruction yet maintains its frightful aggregate ; which is justly attributed to the unceasing operations of the pernicious agencies already named, and the perfect impunity with which they carry on the nefarious traffic, while laws specially framed to suppress it remain, through the *inactivity of the public, practically in abeyance.*"

THE Senate of the University of London has appointed as its new examiners in—Medicine—Dr. Russell Reynolds ; Anatomy—Mr. John Wood ; Physiology—Mr. Henry Power ; Materia Medica—Dr. Garrod.

A HASTY promise sometimes requires to be unexpectedly fulfilled, and many a person has had to redeem a personal pledge which he never dreamed he would have ever been called upon to meet. It would appear, however, that such drafts of honour, payable contingently on recovery from illness, are not negotiable, at least by the doctor; so that patients need be no longer deterred from affording a little promissory stimulus to their doctor by the fear that they may get well too soon, and be thereupon expected to pay. A Dr. Fogerty has lately sued a native Indian nabob for £7200 for attendance, basing his demand on the statement that the patient had promised him 5000 rupees over and above his fees, on condition that he was able to sit up and eat within eight days. The patient's brother, in his presence, raised this promise to £5000. The nabob sat up and ate within the prescribed time, but, after all, only made a jest of the extra fee. Dr. Fogerty did not see the point of the joke, and commenced an action for the amount, but learned to his cost that nothing but the regular professional fees were substantial in the eye of the law. We advise Dr. Fogerty in the couplet—

"Solvet dum dolet,
Nam sanus solvere nolet."
"Let him pay while he aches,
Or when cured he may not like to do so."

THE Chair of Physiology at Würzburg, vacant by the death of Professor Bezold, has been offered to Professor Pfleïger, of Bonn, who is very likely to accept it.

HER Majesty the Queen has given £250 to the building fund of the Edinburgh Royal Infirmary.

DR. THORNE THORNE has been appointed physician to the Royal Hospital for diseases of the chest.

SIR JAMES CLARK has had a severe attack of bronchitis, from which he is slowly recovering.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE quarterly meeting of this association took place last Wednesday evening, according to the announcement, and was largely attended. Some formal business having been transacted, the quarterly report of the council was taken as read. This important document opens with a correspondence between the Secretary of the Association and the Poor-law Board relating to the supply of medicines to the sick poor, in which the Board announce that although they "are of opinion that the supplying of medicines by the guardians as a distinct proceeding on their part is an expedient course, the Board have no power to terminate any existing contracts between guardians and their medical officers, except for the purpose of giving effect to the provisions of the acts with respect to the establishment of dispensaries."

The council, while participating in the disappointment which will be caused by this decision, note with satisfaction the admission that "the supplying of medicines by the guardians as a distinct proceeding on their part is an expedient course," and trust that a clause to give effect to it may be added to the Poor-law Bill now under the consideration of the legislature.

The report then states that the council, having carefully considered the subject referred to them of a *basis* for the equalization of salaries of medical officers in the London district, are unanimously of opinion that the "*per case*" system of payment is the most equitable for district medical officers; that the scale of remuneration should not be less than 3s. 6d. per case; medicines and dispensing to be paid for out of the Common Poor Fund; and that the salaries should be revised once in three years, and payment made upon the average annual number of cases attended in such period. For the workhouses they think no fairer scale of payment can be suggested than that which has received the sanction of the Poor-law Board in the parish of St. Marylebone, and which has already been commented on in our columns.

The Council then direct attention to the General Order of the Poor-law Board just issued, imposing "serious responsibilities and additional work" on workhouse medical officers without additional remuneration. This order has been previously remarked upon in THE MEDICAL PRESS AND CIRCULAR, and we have pointed out that the duties imposed by it must bring the Poor-law Medical Officers into collision with their guardians, or will be only too likely to make them responsible for workhouse mismanagement. While appointments are held by so uncertain a tenure as at present, the Council think it is somewhat hard that medical officers should be placed upon the horns of such a dilemma ; but with inviolable appointments, held direct from the central board, and with some approach to the rank and pay of inspectors, they admit that the new duties might be efficiently performed, and with much advantage to the service, by the medical officers. At the last general meeting a resolution was passed to the effect that the time occupied by the medical officer in desk work, especially in keeping the Workhouse Medical Relief Book, was so much time lost to the service of the sick poor, and a means of diminishing it was suggested to the end that he might be enabled to

devote the whole of his time to his medical duties. This resolution was forwarded in due course to the Poor-law Board, who have, to a certain extent, adopted in the new Order, the remedy proposed, viz.—the use of diet cards; but so as to increase the clerical work of the medical officer, already so onerous. The order will have the same effect throughout.

The Council next direct attention to the circular letter, requesting the co-operation of the guardians in discouraging the employment by medical officers of "unqualified" assistants to attend the sick poor. The Council consider that the practice of employing unqualified assistants is the fruit of necessity; the salaries usually awarded to medical officers not permitting of their engaging the services of legally qualified men. It must also be prominently remarked that during the last twenty years the union medical officers have, as a rule, acted in this matter in strict accordance with the implied authority of the Poor-law Board. In the official circular of the Board (April 4, 1848), occur these words:—"The Board are not prepared to say that in ordinary cases the medical officer may not employ, under his own superintendence, his assistant or *apprentice* to visit the sick paupers under his care; but they most distinctly point out that his doing so would not in any degree relieve him from any portion of the responsibility attaching to the discharge of the duties of his office." If, however, the district of a medical officer were not so extensive, or the cases not so numerous as to make it physically impossible for him—with due regard also to his own interests—to personally attend all his union patients, no doubt he might be fairly prohibited from doing any part of his duty vicariously. But as it is, either the districts and cases must be restricted to a manageable size and number, or such addition must be made to the salary of the medical officer as will enable him to employ a legally qualified assistant. In the case which probably gave rise to the circular of the Board, the district had double the population which can be legally assigned to a single medical officer without the special sanction of the Poor-law Board; and the cases were far too numerous to be attended to by any one or even two men. The guardians have recognized the difficulties of their medical officer, and granted him an extra allowance of £120 per annum to pay for the services of a legally qualified assistant. Will other boards do likewise; or, failing to do so, will they insist on their medical officers employing none but legally qualified assistants, in accordance with the recommendation of the Poor-law Board? If the latter course is adopted by them, this circular will prove the proverbial "last straw," and will so over-burden the ill-paid and already over-worked district medical officer, that the service will become altogether intolerable.

The report next alludes to the case of Dr. Rogers, on which we have said so much. It seems that after his dismissal Dr. Rogers tendered his resignation of the presidency, which he has so ably filled from the first formation of the Association. The Council, however, requested him to withdraw it for the time, so that its acceptance or otherwise might be left to the decision of the quarterly meeting; and to this course Dr. Rogers very kindly consented.

We have entered thus at length into the quarterly report, in order that all our readers may follow the important proceedings of the Association.

This report having been adopted, Dr. Rogers, the President, proceeded to make his statement, and to resign the office he has held from the commencement of the Association. He said—

When I last addressed you, I was under suspension, from the office I held at the Strand Union. I told you that I was prepared to meet any accusation the guardians could prefer against me if an opportunity was afforded me, and I demanded a public inquiry. This, I regret to say, the Poor-law Board refused, although my demand was supported by a vestry meeting of the parish in which I reside, and by a minority of the guardians, and several former guardians were prepared to give their testimony on my behalf. But I did not then tell you I had too much reason to fear I might not obtain justice at the hands of the permanent staff of the Poor-law Board; and that they would not be likely to spare any effort to deprive me of my appointment, their hostility having been repeatedly avowed to various persons, who communicated it to me; and, as an example of it, let me relate what took place after the public inquiry at the workhouse in June, 1866. On that occasion I gave evidence, on oath, which created deep dissatisfaction at head-quarters—my statements unavoidably reflecting as much discredit on the Central Board as on the guardians. Now, although in the course of my evidence I distinctly showed that I had repeatedly asked for various alterations, and that my applications had entailed much hostility upon me, which was confirmed by several members of the board who were present, and that the condition of the house was well-known to the guardians, yet Mr. Cane, in his summary of the evidence, threw on me the principal blame of the sad state of things which had prevailed, as appeared by the return moved for by Sir J. Simeon, which was published as a parliamentary paper, but without the opinion of the then President, Mr. Villiers, being attached to it, in which he (Mr. Villiers), wholly ignoring Mr. Cane's summary, did not allude to me in any way. (This was subsequently obtained from the Poor-law Board, on the application of Mr. John Storr, a guardian.) Be the object of this suppression of the decision of the Board, for such it was, what it may (it took place during the interregnum consequent on the formation of Earl Derby's government), the effect was to stimulate certain of the guardians to open hostility against me. A vote of want of confidence in me, founded on Mr. Cane's analysis of the evidence, was brought forward, but was not carried. Disappointed in this, the next step taken by the permanent staff to get rid of me was an attempt to persuade the guardians to appoint a resident medical officer, though they knew that my deputy lived next door to the house, and was always immediately available when wanted. The device was too transparent, and it failed. The winter passed away; but so resolute were they that directly after the Metropolitan Poor Bill became law they again wrote, and urged the guardians to appoint a resident, which, however, they declined to do. When I was suspended the guardians appointed an immediate neighbour, on the same night, to look after the house and the large parish of St. Anne's, Soho. This, when reported to the Poor-law Board, was not interfered with; and now, months after, they allow it to go on, though contrary to their own general order. Immediately after this the election of a new board took place, and several gentlemen who had befriended me declined to serve again, and serious illness incapacitated some of the most respectable and influential. During last summer, however, matters passed over fairly well, save that the guardian who afterwards moved my suspension induced his colleagues to pass a resolution which reflected, in an unjust and unwarrantable manner, on my professional skill, &c., and that, too, on grounds which were afterwards clearly shown to be absolutely groundless. In the month of October I felt it to be my duty to make complaint of the sad indifference that had been shown in the treatment of a pauper girl who had been sent up from Edmonton seriously ill. The facts were forwarded to the board, with a request that they might be inquired into by the medical inspector. This the board declined to do. They sent my statement to the incriminated officials at Edmonton, who generally denied the allegations. Their denials were sent to me; and, as they were utterly opposed to the facts within the knowledge of myself and other officers of the workhouse, I forwarded the complaint to the Poor-law Board. I subsequently learnt that the medical inspector, Dr. Markham, saw the girl at the house. He also examined the incriminated officials. I should like to know where the examination took place and in whose presence. Certain it is that he held no communication with me; nor did he take, or offer to take, the evidence of any of the officials at the workhouse, who could have testified to the truth of my statement. In consequence of the annoyance arising from the admission of casuals, many of them sick, within the walls of the workhouse, I was induced about this time to write to the Poor-law Board upon the subject, describing my difficulties. My letter was sent to the guardians, some of whom expressed great resentment at my having written, and an offensive resolution was proposed, carried, and sent to me. I called a day or two after on the medical inspector, Dr. Markham, and told him what had happened, which he listened to with apparent sympathy. Three or four days later, however, he sent to the guardians his opinion, formed privately mind, of the case of the pauper girl just referred to, in which he stated that my conduct was "most reprehensible" in making complaint on her unsupported statement—unsupported because he, in violation of all the rules of justice, had not taken the evidence of the officials who would have proved my charges. The guardians immediately suspended me, the guardian who moved it stating he had authority for saying that he knew the Poor-law Board wanted to get rid of me. Directly after my suspension was communicated to me I wrote to Earl Devon, as I felt satisfied there was no hope of justice from the permanent secretary. My letter was, however, sent by the Poor-law Board to the guardians, and subsequently made the basis for the charges

upon which the suspension was justified. At first the guardians were puzzled how to proceed, but the clerk suggested that the minutes should be searched. This was acceded to, and he was entrusted with the sole responsibility of extracting from the records of twelve years what he liked, without reference to explanation, denial, &c., from me. This individual had never evinced any kindly feeling towards me. I was so unfortunate as to incur his hostility some years ago. Being away from town, a groundless charge of neglect of duty was brought against my assistant, who acted as my deputy, by a late master of the workhouse, and was read to the board by the individual above referred to. Now it so happened that at the very time of the alleged default I had seen the master in company with this person nearly one hundred miles from town; and in the inquiry which took place this fact became known, and it then turned out that both these individuals had been absent from duty some days without leave; consequently the false charge fell to the ground, as they would have no knowledge of what had been asserted. He did not, however, extract this from the minutes. The statement and charges thus prepared were sent to the Poor-law Board, and subsequently forwarded to me for my observations thereon. I answered briefly. It was impossible to meet such assertions, so irrelevant and spread over twelve years of time in writing. I again asked for a public inquiry. My demand was silently refused. This was in accordance with the expressed wishes of the guardians. Had it been granted I could have disproved everything worthy of any consideration, but perhaps I should have shown that from the first there was a good understanding with the officials at Whitehall that my suspension would be confirmed. It may be asked, what grounds had the staff of the Poor-law Board for their unfriendliness to me? It is to be explained by the fact that it was well-known to them that I had suggested the formation of the Workhouse Infirmaries Association, whose labours had incidentally reflected such lasting disgrace on the board, and that I had warned Mr. Hardy against being led away, as he subsequently was, by the officials who surrounded him, and who, I knew, were leading him astray. In all this I may have been indiscreet, but I thought that if I failed not in the performance of my duty I should be unassailable. But it is now proved that such reliance was misplaced. I might have gone on, being 'antagonistic to the guardians," as they choose to call it, and continued 'wanting in deference and courtesy" to them, as long as I liked. I should have been secure had I not unavoidably brought deserved discredit on their office. They have now laid down the rule that no amount of zeal or ability will avail to preserve a medical officer's appointment if he should be so unhappy as to offend the permanent staff of the Central Board. We have heard something this evening respecting the regulations recently issued to workhouse Medical Officers. There is not one requirement which, at one time or the other, I have not brought under the notice of the Local board, and nearly always with the effect of exciting deep personal hostility. On three or four occasions during twelve years I have written to the Poor-law Board and requested their action and advice upon these matters, and, as a result, had hostile resolutions passed upon me, and, finally, I have been suspended and forced to resign. What security now do they offer to medical officers who will interpret these regulations literally? Absolutely none at all. If they neglect them, they will be censured and perhaps dismissed; if they perform them, they will be in equal danger—deemed "antagonistic and wanting in courtesy and deference" to the guardians. Truly we have fallen on evil days. Gentlemen, I must bring these observations to a close, but I cannot sit down without expressing my deep sense of obligation to those gentlemen and friends who have given me their sympathy and support, and especially those, including many members of Parliament, with whom I have worked so long in the Workhouse Infirmaries Association, and who, at a recent meeting, passed a resolution condemnatory of the injustice which the Poor-law Board had perpetrated in compelling my resignation without any open public inquiry into the truth of the charges; to the members of the council of our own Association; and, above all, to a fearless and independent press, both general and medical, which, with one remarkable exception, has given me the most generous assistance. I need not name that exception; you all know to which journal I allude, and those of you who are supporters of it will, no doubt, share the indignation I have felt at the attacks and calumnies of which it has been made the medium. The hand that should have been stretched out to help me struck me again and again when he thought I was down, consented to become the apologist of my persecutors, and sought to injure me in every way, both privately and professionally. Yes, it was my "own familiar friend, in whom I trusted," the colleague with whom I had worked and fought, and at whose service I had placed all my official experience, who thus "magnified himself against me"—who forsook me in the hour of need and turned against me the influence of a position of which he thus proved himself absolutely unworthy. I may well say, in the phrase employed by another medical journal, in commenting on this desertion, "*Et tu Brute!*" But I must quit this nauseous theme, and, as a concluding remark, let me advise you (although I do not see much prospect of any immediate beneficial result from your labours), to hold together as an association; avoid giving offence to your local boards, if possible, and await the turn of events, which, for good or evil, must arise from the dissolution of the existing and the election of another Parliament upon a more advanced and liberal basis (loud cheers). I now, gentlemen, resign into your hands the presidency of this Association.

At the conclusion of his speech, which excited a deep sensation, and was frequently applauded, Dr. Rogers left the chair, calling upon Mr. Godrich, vice-president, to assume the post, which he having done,

Mr. B. CLARKE, of the East London Union, rose and moved successively that Dr. Rogers be elected an honorary member of the association, and that he be invited to fill the post of president so long and ably occupied by him while still a medical officer.

Both propositions were received with loud applause, and carried unanimously, the whole meeting rising to second them.

Mr. GODRICH congratulated the association on what it had done, and Dr. Rogers on the noble stand he had made; and further, said that he saw no reason for observing the reticence of their friend who had not named the journal referred to at the close of his speech. It could not be too widely known that it was the *British Medical Journal*—the journal of the British Medical Association—to which Dr. Rogers had referred, or rather its editor, in terms of just indignation.

Mr. Godrich then vacated the chair, which was again taken by Dr. Rogers, amid loud applause.

Dr. ROGERS, in returning thanks for the honour of this re-election, said he was at first disposed to ask himself how he could consistently hold that office now he was no longer a Poor-law Medical Officer, nor ever likely to become one. But though dismissed by the Poor-law authorities, he was still connected with the treatment of the sick poor. He had lately been elected medical officer to the Newport Market Refuge and Industrial Schools for Friendless Persons, an institution which, though paid for and governed by voluntary efforts, helped to supplement the deficiencies of the Poor-law system, and as they knew, he had succeeded in his efforts to expose and remedy some of them, it was but natural he should gravitate there. He was happy to say his board of directors were all gentlemen, and did not need crown nominees to make them act honestly. He therefore thought he might resume the presidency.

The report of the council, of which we have given an abstract, having been adopted, the meeting proceeded to the other business.

Mr. EUGENE GODDARD, in an able speech, moved the first resolution, which was—

"That this meeting is of opinion: 1st. That the system of payment '*per case*' supplies the most equitable basis for the equalization of salaries of the London district medical officers; that the scale should not be less than 3s. 6d. per case, exclusive of the cost of medicines and dispensing; and that the salaries should be subject to triennial revision, payment being made upon the average number of cases attended annually: 2nd. That the scale of payment of the medical staff of the Marylebone Workhouse, approved and sanctioned by the Poor-law Board, is equitable, and that the adoption of a similar scale as the basis for the equalization of the salaries of the metropolitan workhouse medical officers generally, would give entire satisfaction."

The resolution was seconded by Mr. GODRICH, supported by Mr. B. BAKER, and carried unanimously.

Dr. ANSTIE moved the second resolution:—

"That this meeting, having taken into consideration the new General Order of the Poor-law Board imposing additional duties upon the medical officers of workhouses, desires to record its opinion that the effect of the Order, if rigidly carried out, will be to bring the medical officers into frequent collision with the guardians; and being further of opinion that some of the duties—especially those specified in Article 5—can be pro-

perly performed only by officers independent of the guardians, deems it advisable that such duties should be performed, as heretofore, by inspectors."

While regretting that some more immediate representative of the Poor-law Medical Service had not been called on to move this resolution, he felt that some reasons made him a not unsuitable substitute. He had seen much of workhouse management, and the duties of medical officers, and of the relations between them and their guardians. Upon the strength of his experience, he declared against the expediency of the new general order. He did not object to medical officers reporting on the sanitary condition of their workhouses—it was, indeed, a scandal that the opinions of the medical officers on questions of this kind were so seldom acted on. His objections were of another order. The new regulations imposed must entail much additional labour on the medical officers, whose pay is already discreditably low in proportion to their duties. If they do their duty as now laid down, they will have to condemn many existing abuses, and recommend many expensive changes. How will the Boards of Guardians receive such proposals? They will harass and persecute any man who may venture to do his duty, and make his life a burden. Will the medical officer be sustained by the Poor-law Board from attempts of the guardians to get rid of him? Witness the action of the board in relation to the President at the Strand Workhouse, and the still more recent compulsory resignation of Dr. Ransom, of Cambridge! In the event of any struggle arising out of this order between a medical officer and a board of guardians—the one anxious to do his duty by the sick poor, and the other to save the rates, the influence of the Poor-law Board will be exercised on the side of the guardians and against the sick poor and their solitary friend the doctor. He counselled them to united action, to resist this high-handed and unscrupulous dealing on the part of the Poor-law Board. Let them try to influence every Member of Parliament with whom they had any acquaintance, and persuade medical pupils to shun the service. He hoped the time was approaching when medical men would not be found to accept appointments from which honourable men had been driven, for no fault of their own but simply to please selfish and ignorant men, who chose to rid themselves of a medical officer, the tenderness of whose conscience threatened to tax their pockets inconveniently on behalf of the poor.

This resolution was seconded by Dr. BELCHER, and supported by several members.

Dr. RANSOM, of Cambridge, who was received with loud cheers, also spoke in support of it. He said he had been called upon to resign his office for having done just what the new order required. He had recommended distinct baths for inmates and casuals, proper wards for idiots, a little warmth and comfort in the casual wards—all necessary improvements but, of course, involving expense. One week he had been censured for signing the workhouse relief book for extras for persons engaged in labours of whom he knew nothing, and the next week again, censured for not doing the same thing. He had been officer for 25 years, and no complaint had been brought against him. When his case was brought before the Poor-law Board, they said he deserved a censure, but dismissal would be too harsh. Yet, to please the guardians, they had just afterwards called upon him to resign. He had been condemned by a newly fledged inspector of not a month's standing, insulted by the clerk in a manner that would have led to summary punishment had it occurred outside, and got rid of by the guardians to gratify a dislike founded on political grounds. (The greatest enthusiasm was produced by Dr. Ransom's speech.)

Dr. S. GIBBON (Medical Officer of Health for Holborn), though not a Poor-law officer, nor member of the Association, could not refrain from a few remarks in support of this resolution, especially as he had come to the meeting to make a statement, which he took this opportunity of doing. He denounced the new order as unjust, and an attempt by a side-wind to make the medical officers incriminate themselves, and then—the Board would hang them. It was most unjust, most unfair, most un-English. The statement he wished to make was that a deputation was to wait on Lord Devon the next morning, to press the necessity for efficient medical inspection, and he would take the liberty on that occasion of letting Lord Devon know what he and others thought of the new order which, without additional remuneration, imposed more duties on the already over-worked medical officers, and these duties such as pertained rather to the housekeepers, nurses, and to matron.

Dr. ROGERS before putting the resolution to the meeting, expressed his belief that this was another stratagem of the permanent staff to shield their colleagues, the lay inspectors, from further public reprobation for their, now proved, neglect of the most important part of their obligations, and for the performance of which the country paid them so liberally, by throwing the duty on the unfortunate Union surgeons. There was only one way to make the Poor-law Board act fairly, and that was to worry them by independent questioning in the House of Commons.

The resolution was then put and carried by acclamation.

Dr. R. FOWLER moved the next resolution :—

"That this meeting has heard with surprise the announcement of the receipt, by the several boards of guardians, of a circular letter from the Poor-law Board, on the subject of the employment by medical officers of legally unqualified assistants: That in the opinion of this meeting this practice of certain union medical officers has for the last twenty years received the implied sanction of the Poor-law Board itself, as witness the following passage taken from their official circular, dated April 4, 1848 :—'The Board are not prepared to say that in ordinary cases the medical officer may not employ under his own superintendence, his assistant or apprentice to visit the sick paupers under his care ; but they most distinctly point out that his doing so would not in any degree relieve him from any portion of the responsibility attaching to the discharge of the duties of his office.' That should it, however, be now the intention of the Poor-law Board to enforce the employment by the medical officers of legally qualified assistants, this meeting is further of opinion that it will be imperatively necessary for the Board to supplement such Order with a compulsory and considerable augmentation of the present very inadequate salaries of its several medical officers."

Having read the resolution as above, Dr. Fowler said:—The recent agitation, taken up by the public at large, and which has resulted in so much talked of change in the medical relief of the sick poor, seems quite to have ignored the very existence of poor-law medical officers. They, as well as the poor under their care, have indeed for years past had almost intolerable grievances, and yet it is even now considered that their backs are not quite sufficiently burdened. The agitation of bygone poor-law medical reformers recognised these grievances, and had, certainly, amongst its other objects, the direct benefit of their medical brethren—the Poor-law medical officers. Going no further back than Mr. Pigott's committee of the House of Commons in 1854—the result of the labours of Lord, of Hampstead, the late Dr. Hodgkin, and others—we owe to that the establishment of the principle of the permanency of our appointments—the most valuable banner of our little independence. In 1861, the indefatigable tenacity of purpose of Mr. Griffin, of Weymouth, led to the medical question being brought before Mr. Villier's select committee on poor relief. Mr. Griffin, Dr. Rogers, and myself, were examined, and one of the points we, one and all, strongly insisted on, was the immense advantage of the expensive drugs being found by the guardians. When considering its report, the committee divided on this very question, which was ultimately put as one of its recommendations ; and the consequence is that some few unions have conceded this boon. In these lucky instances there is not now that constant struggle betwixt humanity and the pocket as there must otherwise be in the person of almost every Poor-law medical officer. Now, sir, I am constrained to ask what direct benefit has occurred to the medical officers by recent agitation and its culmination in this metropolis—Mr. Hardy's Bill. I confess, sir, I was one who, in the early days of excitement, hailed its passing with delight, believing it was the thin edge of a wedge which, driven onwards, would lead to great results. On calmer and more careful examination, I found that all its clauses likely to be of any benefit to the medical officers were permissive and not obligatory, and through the former can always be driven with facility O'Connell's proverbial coach and six. In fact, it has been said that the Act was to relieve the guardians, not to benefit the medical officers. I shall, of course, be answered that the increased comforts of the sick poor must of a necessity be, at all events, of indirect advantage to the medical officers. Admitting the truth of this assertion to as much as it is worth, I must, sir, point out to you that these advantages, as far as at present intended, appear to be granted at the expense of the time and of the pocket of the Poor-law medical officer. In fact, we are in the position of the Israelites, who, when they complained to Pharaoh of their burdens, were deprived by him of the straw wherewith they made their bricks. The imposi-

tion of additional duties on the workhouse medical officers without any corresponding increase of their salaries, proves the correctness of my assertion. And this question of unqualified assistants is another back-breaking straw. This question is a very important one, because, in its existing form, it makes a direct appeal to an increased expenditure out of present very inadequate salaries. The employment of legally unqualified assistants demands a two-fold consideration. To what use have we put them; and why have we employed them? Now, sir, I have no hesitation in saying, and they who have any practical acquaintance with Poor-law medical officers will confirm what I say, that, as a rule, the medical officers, in so far as they have used their unqualified assistants in their public practices, have used them in the sense impliedly sanctioned by the Poor-law Board itself, *i.e.*, under their immediate superintendence and direction, not giving these gentlemen sole charge or responsibility of the paupers they occasionally visit. Of course the Poplar case will at once be thrown in my face, but I aver that this was an exceptional case, and, as an exception is required to prove a rule, so Dr. Gale's case forcibly proves one great blot on Poor-law administration, viz., the insufficiency of its means to the end in view. Sir, I think, we ought as men to take this opportunity of contributing a word of praise to a body of gentlemen indirectly stigmatised by this last circular letter of the Poor-law Board. There are many good men of mature age who, having gone through all or nearly all their hospital studies, are, from pecuniary or other circumstances, precluded from legally qualifying themselves. Such are sought after by Poor-law medical officers, and form most valuable assistants. Their practical knowledge is great, and if we could afford to retain them when qualified they would be worth treble their salaries. They are not locomotive in their desires, and when satisfied with their places, retain them long. Yet these are the men who the Poor-law Board says shall not attend the sick poor; whilst a few years ago it sanctioned a young apprentice, probably about fifteen, to "visit ordinary cases." It is this very properly and very naturally transitory servitude of legally qualified assistants which has, doubtless, been one objection to their employment. But the great and main objection has been the £ s. d. We shall be only too glad to employ legally qualified men. We shall thus be relieved from a great deal of moral responsibility and from much bodily fatigue. To do so we must have the wherewith to do it, which our present miserable salaries—in some instances but a few pence per case of week's duration—entirely preclude us from. It is not only a question of changing our present assistants. When the edict has gone forth from Gwydyr House, there will be required about 3000 qualified assistants. The market value of these gentlemen will of course proportionately rise; and, inasmuch as practical dispensing is not an invariable part of the present medical education, we shall be also put to the additional expense of employing dispensers. Our resolution records our surprise, and well it may. We have, as a body, for years given more personal attention to our duties than has been ever, or can be ever, adequately remunerated. When introducing, in attendance with many members of Parliament, a very large deputation of metropolitan Poor-law medical officers in 1859, to Mr. Sotheron Estcourt, the then president of the Poor-law Board, Lord John Russell remarked—"He felt sure the important subject which had brought them before him would meet with all the attention it deserved, and they themselves that respect to which the skill and ability which they devoted to the medical attendance of the sick poor of the metropolis so justly entitled them. Some years since it so happened that his own attention had been called to the subject of medical relief in various ways, and from that time he had remained convinced that the poor of the country obtained, in medical and surgical attendance, an article at a price far below what it was worth if paid for according to its real value in the market." We should, moreover, sir, be more than human if we worked ourselves to death in our public practices, to the total neglect of those private patients who are willing to properly remunerate us. In committee on the Metropolitan Poor Bill, Mr. J. S. Mill suggested that we should be debarred from private practice, adding, "It was eminently honourable to the profession that public duties were so well attended to as they were." Mr. Hardy, after pointing out the impracticability, in general, of getting men to take the duty if they were prohibited from private practice, and admitting that in a few cases of urgency brought before him the medical officer had given a preference to his private patients, added—"At the same time, he was bound to remark that in many cases the salaries were so small that the medical officer could not be much blamed for endeavouring to get money from other sources." This, sir, is the gist of the whole matter. We are but human. Our profession is our bread, and unless our salaries are considerably augmented, it will be practically impossible for us to afford to pay for legally qualified assistants. Underpaid work will always be underdone work.

The resolution was seconded by Dr. THOMAS, and supported by several gentlemen, one of whom, Dr. NICHOLAS, remarked that unqualified assistants were not only employed to attend the pauper, but also the private patients of their principals. Looking at the poor pittance paid he would ask if the pauper patient was to be treated better than the private patient who paid his attendant? By all means let the pauper be treated as well as the pay-patient, but was he to be distinguished by being treated better than those who paid for the medical officer's services?

In putting the resolution, Dr. ROGERS thought this was only an attempt on the part of the Poor-law Board to revive their fading popularity, and not dictated by any consideration for the interests of the sick poor. They had known for years that very few Poor-law Medical Officers could, out of their wretched salaries, pay for qualified help, but they had worked at this, they would still do so, but there was, first, a popular outcry in consequence of Dr. Gale's case; and, secondly, they wished their powers extended, and were, therefore, stimulated to issue this letter. When he was a Poor-law Officer he had for 11 years kept a qualified assistant; it was right for him to do so, but he felt the expense to be a great strain upon him; if, however, he had not done so, the Strand Board would have ousted him long since. The Clerk had frequently hunted him up to see whether his assistant was qualified.

The resolution was carried unanimously.

It was then suggested that a deputation should wait upon the Poor-law Board with the resolutions, but it was stated that the Board had already twice refused to see them. It was said the Board had laid down the principle that they would not admit their officers to any personal interview, as they stood in relation of employed and employers.

Another member suggested sending a memorial, but this was felt to be useless.

Dr. S. GIBBON was in the end requested, and at once consented, to take charge of the resolutions, and bring them forward the next day at the deputation to Earl Devon.

The proceedings terminated by a vote of thanks to the Council for their labours during the past quarter, and to the chairman for his conduct in the chair.

THE DEPUTATION TO THE EARL OF DEVON.

The deputation named in the foregoing report of the Poor-law Medical Officers' Association was received, according to the arrangements, by the Earl of Devon, on Thursday last.

Dr. Gibbon, according to his promise, brought under his Lordship's notice the resolutions that were confided to his care.

His Lordship confessed that the order placed the medical officers in a new position, but he seemed to think it better for them to report direct to the central board instead of to the guardians.

Further, his Lordship said he had several objections to increasing the number of medical inspectors, and further, inspection might be objectionable to the guardians. He added that he did not think the medical officers were adequately paid, and he should be glad to see guardians increase their salaries.

We regret not having space for a more detailed report, but the above confession of the President of the Poor-law Board, may be considered to be the result of the deputation.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE CARMICHAEL PRIZE ESSAYS.

ON Monday, 4th inst., the announcement of the successful candidates for the Carmichael Prize Essays, took place in the theatre of the Royal College of Surgeons, in the presence of the Fellows and the Licentiates of the College, as well as a large number of medical students.

Dr. ROBERT ADAMS, the President, took the chair.

Amongst those present were:—

George H. Porter, Vice-President; Wm. Colles, Secretary. Council—Drs. Wm. Hargrave, James Barker, Hans Irvine, Samuel S. Wilmot,

Richard G. H. Butcher, Rawdon Macnamara, Hamilton Labatt, Benjamin M'Dowel, Edward Ledwich, Wm. Jameson, Alexander Carte, James H. Wharton, G. W. Hatchell, Albert J. Walsh, Edward D. Mapother, William A. Elliott, Archibald H. Jacob, James Stannus Hughes, Secretary of Council, John Brennen (registrar), Drs. Cameron, Minchin, Quinan, Barker, O'Grady, M'Donnell, Stokes, Beatty, Cronyn, Guinness, Hewitt, D. Rogers, Rox, Gogarty, Gordon, Lynch, Benson, Shaw (F.T.C.D.), Kilgarriff, Nugent, John Owens, Croly, Ruckley, J. R. Kirkpatrick, George Owens, &c.

The PRESIDENT, in opening the proceedings, said that the meeting was assembled to carry into effect the object and spirit of the will of the late Mr. Carmichael. The President then read a lengthened extract from the will of the deceased, which stated that he had in his will of February, 1849, bequeathed £3000 to the College of Surgeons in Ireland, the interest arising from which sum was to be disposed of as follows:—Every fourth year after the investment of the sum in the funds of the College, a premium of £200 was to be adjudged by the Council for the best essay, and £100 for the second best upon the state of the medical profession in its different departments of physic, surgery, and pharmacy in Great Britain and Ireland at the time of the writing of such essays; the state of hospitals and schools of medicine, surgery, and pharmacy, and the state or mode of examination of testing the qualifications of candidates of the various licensing colleges or corporations in all these departments. Under these heads the authors should make such suggestions as occurred to them respecting the improvement of the profession with the view of rendering it more useful to the public, and a more respectable body than it is at present, and embrace within their observations the preliminary and moral education of medical and surgical students, as well as the best mode of conducting their professional studies. The consideration of the means for rendering the examinations as demonstrative as possible should likewise be the object of the essayists. To announce the successful candidates was now their business, and he would call on the secretary, Dr. Macnamara, to read the report of the judges.

Dr. MACNAMARA then read the following report:—"Gentlemen, we have most carefully read, studied, examined, and compared the five essays submitted for competition for the Carmichael Prizes, bearing respectively the following mottoes—viz., 'Delta A,' 'Salus Populi suprema lex,' 'E Spina culta fiat rosa,' 'Unite and prosper,' and 'Non nobis sed omnibus,' and now beg leave to submit for your consideration the following remarks as the result of our separate judgments and combined deliberations. It is the opinion of your judges that they could not recommend to your consideration for either of Mr. Carmichael's prizes any one of the first-named of these three essays—viz., 'Delta A,' 'Salus Populi suprema lex,' or 'E spina culta fiat rosa,' inasmuch as, though scattered through their pages are to be found some good, useful, and in some instances practical suggestions, still in their entirety they do not seem to be written in accordance with the enlightened spirit of the testator's bequest, nor even up to the present advanced position and requirements of our profession. With reference to the two last-named, the essay bearing the motto 'Unite and prosper' from the care and reflection which its author seems to have bestowed upon its composition, the generally correct views which it has enunciated, the useful suggestions he has given, and the apparent practicability in many instances of their being carried into effect, together with his adherence to the directions given by Mr. Carmichael for the guidance of competitors for his prize, to be the essay which we are most justified in recommending to the council for the honour of having awarded to it the first prize. With reference to the essay bearing the motto, "Non nobis sed omnibus," we feel justified in recommending the Council to award to it the second prize, inasmuch as though many of the author's suggestions may seem to be far in advance of the age, and, consequently, to be to some extent Utopian, still the work is evidently the production of a gentleman and a scholar, and of one earnest in his desire to raise the moral and social status of the medical man; and we doubt not that could his suggestions be carried into practice they would ultimately tend to elevate our profession, and thereby carry out the views of the beneficent founder of the prize fund.

The Registrar, subsequently handed the envelopes containing the names of the successful candidates to the President, who, in opening them, announced that the first prize essay, under the motto, "Unite and prosper," had been written by Dr. Mapother, and that to which the second prize had been awarded, "Non nobis sed omnibus," was the composition of Mr. Isaac Ashe, B.A., B.M., T.C.D.

Dr. MAPOTHER, in returning thanks, said he begged sincerely to thank the president for the kind terms in which he had spoken of his essay, and he would beg for a moment to explain why he did not feel disqualified from competing by reason of being a member of the Council of that College. He was aware that the adjudication would be alone intrusted to three members of the Council, and he was determined to take no part in the adjudication or selection of the judges. Therefore, he felt that he was not disqualified. He might further add that he availed himself of no private source of information to which he might have had access as a member of Council, and he endeavoured sedulously from the commencement to keep his authorship unknown. He did not suggest to the Council the doubling of the prizes as an interested party, and he would have very great pleasure, should any of the unsuccessful essayists question the decision, to bear the expense of printing their essays, and thus bring their cause into the highest court of appeal.

Mr. ASHE returned thanks for the warm expression of approval the adjudicators had used towards his humble merits. He cared more for the opinion of his profession and of the Council than he did for the prize itself. He would only say in addition that it was also an honour to be beaten by Dr. Mapother.

A cheer was then given for Dr. Mapother, and the proceedings terminated.

Correspondence.

CAUSES OF EMPHYSEMA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Please supplement my remarks on the causes of emphysema in your last number, with the fact that abdominal subcutaneous emphysema may be due to ileo-cœcal abscess. This was discovered by Dr. O'Ferrall, and is detailed in a masterly essay on the diagnosis of such affections in the *Dublin Hospital Gazette* of March 1st., 1854.—Yours truly,

April 30th, 1868. E. D. MAPOTHER.

THE HALIFAX MEDICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Without descending to the spirit or acts of "Trade Unionism," the profession throughout the country are now recognizing the advantages of "co-operation," and are endeavouring to obtain for medical advice a more adequate "*honorarium*," and to restore some of that ancient dignity, which a too keen competition, combined with the love of self-aggrandizement, had reduced to a very low ebb. We see this feeling in the various societies which are springing up throughout the country, and in the exertions which they are making to raise the fees for club attendance with such good results, that if we are mindful of the motto, "Vis Unita Fortior," and if we are only true to ourselves we shall be able to obtain many of our wants. An association has been started in Halifax at the wish of the principal members of the profession, and up to this time its working has been followed by the happiest results. Its objects are—to protect the interests of its members, to suppress Charlatanism, and to advance the interests of the profession in every possible way. At the monthly meetings, papers are read or notes of cases given; out of the funds a subscription has been devoted to "Lewis's Lending Library;" the midwifery fees have been raised from 10s. 6d. to 15s.; and we have tried to raise the club fees, but as yet without success. We would wish to suppress the practice of medicine by unqualified persons, but we have come to the conclusion that all our efforts would be futile, until we have a change in some of the clauses of the medical act; and at the direction of the association, I now send you a report of some of the transactions at our last meeting. The members would desire to have an amalgamation of the different societies throughout Yorkshire, in order to secure more harmonious action on many questions which they believe of importance to the profession.

With your permission I will enumerate some of these:—

Firstly.—The return of a general practitioner to a seat on the Medical Council, for pure physicians and surgeons cannot form any adequate idea of their wants.

Secondly.—Changes in the Medical Act for registration is at present a farce, and this conviction has been forced upon us, by seeing this town infested with "Quacks," who are practising with impunity.

Thirdly.—Increase of vaccination fees.

Fourthly—To have our Poor-law officers better paid.

Fifthly.—To secure the return of medical coroners in every town.

We believe that by such a combination we should secure better results than by isolated action, and that if the unanimous voice of the profession was raised on these subjects, and a wholesome agitation commenced, the Medical Council might be stirred up to a more vigorous action on those questions which fall within their province.

Should any of the societies in Yorkshire be disposed to join with us for the attainment of the foregoing objects, I should be happy to hear from them on the subject, and to lay their letters before our Society.—I am, sir, yours, &c.,

THOMAS M. DOLAN, L.R.C.P.,
Secretary to the Halifax Medical Association.

Medical News.

UNIVERSITY OF CAMBRIDGE—NATURAL SCIENCE SCHOLARSHIPS. — St. Peter's College, Cambridge, offers a scholarship of the value of £60 per annum for natural science. The Examination (in Botany, Chemistry, and Comparative Anatomy), will commence on Tuesday, June 9th. It will be open to all students who are not already members of the University, or who have not begun to reside. Candidates must send in their names to the Rev. J. Porter, St. Peter's College, Cambridge. Four scholarships have lately been given in this University—one of the value of £80 a-year, in Trinity College, to Mr. Prior; two in St. John's College, £50 a-year each, to Edmunds and Garrod; and one, £40 a-year, in Downing College, to J. C. Sanders.

LIST of Entries for the Branch Medical Council (Ireland) for the month of April, 1868 :—

William Thornley Stoker, 4, Orwell-Park, Rathgar, co. Dublin, Lic. R. Col. Surg. Irel., 1867; M.D., Q. Univ. Irel., 1866. John O'Neill Sisk, Fermoy, co. Cork, M.D., 1867, and M.Ch., 1867, Q. Univ. Irel. James George Wyse, 1, Anna Villa, Phibsboro', co. Dublin, Lic. Apoth. Hall, Dub., 1867. George Myles, 26, George's-street, Limerick, Lic. R. Col. Phys. Edin., 1866; Lic. R. Col. Surg. Edin., 1866; Lic. Apoth. Hall Dub., 1866. Neill Farren, Straid House, Clonmany, Derry, Lic. Fac. Phys., and Surg. Glasg., 1867. Arthur Thomas Birney, 26, Middle Gardiner-street, Dublin, Lic. K. Q. Col. Phys. Irel., 1868; Lic. R. Col. Surg. Irel., 1867. Andrew M'Munn, Ballymote, co. Sligo, Lic. K. Q. Col. Phys. Irel., 1868; Lic. R. Col. Surg. Irel., 1868. John Joseph Neville, Macroom, co. Cork, Lic. R. Col. Phys. Edin., 1867; Lic. R. C. Surg. Edin., 1867.

Advertisements.

MULLINGAR UNION.

MILLTOWN DISPENSARY DISTRICT.
MEDICAL OFFICER WANTED.

THE Committee of Management of the Milltown Dispensary District will, at their Meeting to be held at the Dispensary at Twelve o'clock noon, on FRIDAY, the 15th MAY, 1868—proceed to elect a Medical Officer for the District, at a salary of £90 per annum, exclusive of fees for vaccination.

The Medical Officer will be required to reside within the district. Candidates must possess the qualifications prescribed by the Poor-Law Commissioners.

The personal attendance of Candidates will be necessary, and their diplomas and testimonials must be lodged with me at or before Ten o'clock, forenoon, on the day of election.

By order of the Committee,
JOHN D. LEMON, Hon. Secretary,
Lemongrove, Milltownpass.

30th April, 1868.

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H MEDICAL ASSOCIATION,
ROYAL COLLEGE OF SURGEONS IN IRELAND.

NOTICE IS HEREBY GIVEN, that the ANNUAL MEETING and DINNER of the IRISH MEDICAL ASSOCIATION, will take place on MONDAY, the 1st June next.

The Meeting will be held at the Royal College of Surgeons, Dr. MACKESY, President of the Association, will take the Chair at Twelve o'clock.

The Dinner will take place at Seven o'clock.

By Order, E. J. QUINAN, M.D., Hon. Sec.
5 May, 1868.

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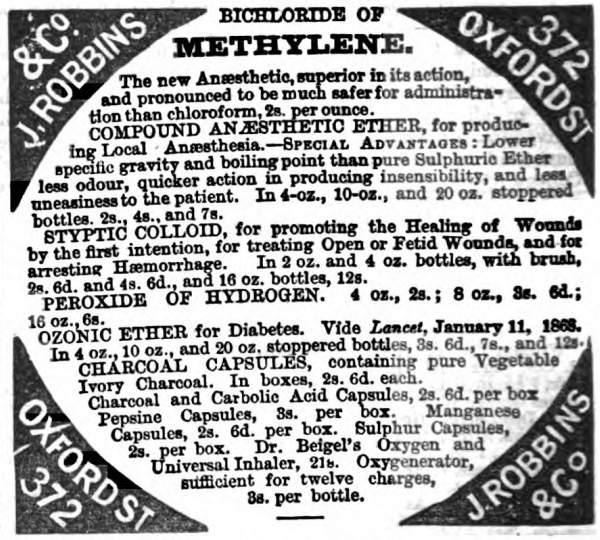

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 13, 1868.

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Dr. LETHEBY'S

FOURTH LECTURE ON FOOD.

PRESERVATION OF FOOD.—UNWHOLESOME AND ADULTERATED FOOD.

(Continued from page 394.)

3RD. *The preservation of food by cold* is a well-known process, for every one is acquainted with the fact that meat will keep for a long time in the winter season without deterioration; but the extent to which this preservative power may be carried is not well-known. Animals, we are told, have been found in a perfect state of preservation in the frozen earth of the arctic regions, where they must have been buried for centuries. Last year, indeed, a communication was made to the Royal Society, by Dr. Carl von Baer of the fact, that the entire body of a mammoth was found in the frozen soil of arctic Siberia. How long it had been so preserved it is hard to conjecture, but it must have been there for ages. Another good example of the preservative power of cold was observed in Switzerland in the autumn of 1861, when the mangled bodies of three Chamounix guides were found at the lower part of the Glacier de boissons. The flesh of the bodies was perfectly preserved, notwithstanding that 41 years had elapsed since the unfortunate men lost their lives. They were carried away by an avalanche from the grand plateaux of Mont Blanc in the month of August, 1820, while attempting to ascend the mountain with Dr. Haimell; and no trace of them was discovered until the corresponding month of 1861, when by the slow descent of the mountain ice their remains were brought to the lower glacier. So well is this preservative power of cold known to the inhabitants of Russia, Canada, and other northern climates, that it is a common practice to slaughter fat animals on the approach of winter, when fodder is getting scarce, and to preserve their carcasses by burying them in the ice or frozen earth; and they are thus preserved from the middle of November to the early part of May. We also have a practice of packing salmon in ice; and we receive game and poultry from America, and send the like to India in boxes surrounded with ice. The application of this method of preserving food is almost without limit, for not only can we obtain a stock of ice for such a purpose in the winter season, but it may be brought to us at any time from colder regions of northern Europe, or it may even be manufactured at a cost of less than half a guinea a ton. There is a machine of Mr. James Harrison, of Australia, made in this country, which is said to be capable of producing 8000 lbs. of ice a-day, at a cost, including all expenses, and with a good margin for profit, of ten shillings a ton. Why, therefore, may we not use ice in the summer months for the preservation of food? Dealers could easily provide themselves with close rooms containing ice, in which the food might be placed; and we, ourselves, might use ice-boxes more commonly in our households. It might interest you to know that the first patent for the preservation of food in this manner was granted to John Lings in 1845.

Again, a temperature of from 200° to 212° will also arrest putrefcation; and joints of meat may be preserved for a time by dipping them every now and then in boiling water.

The 4th and last method of preserving food is *by the use of chemical agents, called antiseptics*, which act by destroying infusorial and fungoid life, and by forming compounds which are not prone to decay. Foremost of these is *common salt*, which has been used from the earliest time; but it is not a good agent for the preservation of meat, as it renders it tough, gives it a bad flavour, extracts the soluble constituents of it, and makes it hard and indigestible. The process, however, is much better managed at the present time than formerly, when the hard junk of the navy was the common diet of our sailors; and, considering how easily it is applied, it is not surprising that it is almost universally practised. In many parts of England and Wales it is the custom of the better classes of agricultural labourers to fatten a pig during the summer, and kill it and salt it for the winter. Hams and tongues are treated in like manner, and so are fish, when they are plentiful among the inhabitants of our coasts. As far back as 1800 a patent was granted to Mr. Benjamin Batley for curing and preserving herrings and sprats by salting them; and it would seem that his process was very successful, for in the following year he obtained a patent for the like treatment of other fish. The dainty *caviare* of the Russian is nothing but the salted roe of the sturgeon. Even vegetables may be preserved in salt and water, as in the case of olives. Other saline substances, as saltpetre, acetate of ammonia, sulphite of potash

or soda, muriate of ammonia, &c., are also good preservative agents, and are the subjects of several patents. Here is a specimen of meat preserved by wetting it with a solution of one part of acetate of ammonia and nine of water; and here another, which has been similarly treated with a weak solution of sulphite of soda. It is only necessary to brush the solution over the surface of the fresh meat, and when dry it will leave the meat in such a state as to resist decay. Instead of covering the meat with the solution, it may be injected with it, as in the patents of Long (1834), Horsley (1847), Murdoch (1851), and others.

After meat or fish is salted it is frequently dried and smoked by exposing it in close chambers to the vapours of smouldering peat, wood, straw, &c., and in this manner it becomes impregnated with the dark brown empyreumatic oil of the burning wood. The chief agent concerned in the preservation of food thus treated is the creosote of the empyreumatic oil, and this it is which gives the food a smoky flavour. A like effect may be produced by dissolving the creosote of wood-tar in vinegar, and brushing it over the salted joint. The creosote of coal-tar *(carbolic acid)* is also a powerful antiseptic, but its flavour is not agreeable, and, therefore, it is not used in the preservation of food; although it is extensively employed in the form of coal-tar, dead-oil or creosote, in the preservation of wood, canvass, &c.; and the perfection of purity to which it is now brought by Dr. Crace Calvert, and other manufacturers, encourages its use in medicine and surgery.

Spirit of wine and *vinegar* are other preservative agents which owe their antiseptic power to their destructive action on infusorial life, and to their combining with the albuminous constituents of food. Cherry-brandy and pickles are good examples of this.

Lastly, I may state that the fumes of burning sulphur (*sulphurous acid*) are very powerfully antiseptic; and many patents have been taken out for their employment in the preservation of food. In the spring of 1854, Laury obtained a patent for it, the gas being introduced into the vessel containing the substance to be preserved. Later in the same year Bellford received provisional protection for the use of sulphurous acid with about one-hundredth its volume of hydrochloric acid—the object being to prevent the sulphurous acid combining with the alkaline salts of the meat, and so giving it an unpleasant taste. The acids were to be used in solution, and the meat immersed in it for twenty-four hours. In the following year (1855) there were three patents—those of Brooman, Demait, and Hands, for the use of the acid in a gaseous form; and in the specification of Demait it was directed that the substance should be preserved by hanging it up in a chamber and exposing it for a time to the action of the gas. Professor Gamgee has revived this process in a recent patent, and with certain modifications. He recommends, for example, that the animal should be made to inhale carbonic oxide gas, and when it is nearly insensible, it should be bled in the usual way. After the carcass is dressed, it is to be suspended in an air-tight chamber, which is to be exhausted of air, and then filled with carbonic oxide gas, to which a little sulphurous acid has been added. It is to remain exposed to these gases for twenty-four or even forty-eight hours, and is then to be hung up in dry air; after which it is said that the carcass will keep for many months without perceptible change in taste or appearance. The process has been tested by killing meat in London, and sending it to New York; and after the lapse of from four to five months the meat has been pronounced good by a practical butcher. I am very much inclined to think that the real preservative agent is the sulphurous acid, and that the highly poisonous carbonic oxide gas might be advantageously excluded from the chamber.

And now, in leaving this part of the subject, I cannot refrain from saying that the history of these patents for the preservation of food affords very striking instances of the necessity for an amendment of our patent laws; for not only is there a frequent disregard of all scientific principles in the construction of the patents, but in many cases there is also a total disregard, or else profound ignorance of what has already been done in the matter. Repetitions, therefore, occur again and again of the same process, nearly always imperfectly specified; and, on the other hand, the most ridiculous propositions often assume an importance as if for no other object than that of obstructing invention. Out of the 121 patents for the preservation of food, which I have had an opportunity of examining, there are hardly a dozen that can be regarded as either useful to the community or profitable to the patentee.

I come now to the last division of our subject—namely, that which relates to the sale and use of *unsound* and *adulterated food;* and perhaps the most important of this kind of food is *bad meat*—that is, meat which is unwholesome on account of putridity or disease. Food of this description has always been a subject of legal prohibition. Among the Jews the prohibition dates from the time of Moses, who is supposed to have received from the Lord during his sojourn upon Mount Sinai, certain oral commandments respecting the slaughtering of animals for food, and the examination of their bodies for disease. There is no account of these commandments in the written law, but they were evidently communicated to the people of Israel by Moses, for he says, "thou shalt kill of thy herd, and of thy flock, which the Lord hath given thee, *as I have commanded thee*—(Deut., chap. xii., v. 21). It is presumed, therefore, that these instructions were very specific, and that they have been practised by the Jews from that time until now. The Hebrew law is that no flesh shall be eaten, except of animals that have been killed and searched, or examined, by the officer *(bodek)* appointed for that purpose; and the most precise rules are laid down for his guidance in these matters. In fact he is bound by very solemn obligations to declare of every animal that he kills, whether the flesh is proper to be eaten *(caser)*, or is unfit for food, by reason of its being diseased or torn (*trefa*). This expression appears to have been derived from an ordinance of Moses, that no flesh should be eaten that is torn in the field (Exodus, chap. xxii., v. 31); the word torn (*trefa* or *terefa*) being supposed, according to the traditions of Hebrew sages, to apply not only to animals torn in the chase, or by wild beasts, or by the bungling act of the butcher, but also to those affected with any disease that would shorten their lives; and as it is thought that such disease is always indicated by the condition of the lungs, the utmost care is taken by the searcher or *bodek* in the examination of these organs. His rules or instructions for this purpose are very strict; but generally it may be said that he condemns as unlawful, or unfit for food, the flesh of all animals in which the lungs present the following appearances:—Certain deficiencies, excess, or displacement of the lobes; adhesions or false membranes; tubercles, or abcesses containing matter or opaque water; discolourations which do not disappear when the lungs are inflated; ulcers, holes, and abrasions letting air through them; consolidations that are impervious to air, and rottenness of tissue. Many of these are, no doubt, unimportant evidences of disease, and therefore, although the flesh of such animals is rejected by the Jew, it is freely consumed by the Christian. The Jews, indeed, make a sort of bargain with the unorthodox butcher, to take only such animals, when slaughtered by their officer, the bodek, as he considers lawful, and the rest are sold to the public. I dare say this has been the practice at all times, for there are frequent references to it in our legal and domestic records. In *Liber albus*, for example, there is a memorandum to the effect that on the 24th of June, 1274, certain discreet men of the city were summoned before the king's council, to answer the question as to what was done with the unclean flesh of the Jews, and whether it was lawful for Christians to buy and eat the same. Their answer was, that if any citizen bought such flesh of a Jew, he would be expelled, and if convicted by the sheriff he would forfeit such flesh, which would be given to lepers or dogs, and he in addition would be heavily fined. To which the council replied that they commanded them in the king's name to have the custom

strictly observed. I fear, however, from the legal records of *Liber albus*, that less attention was paid in those days to the sale of diseased meat than to that of putrid meat; for, on examining the accounts of the citizens made and rendered in divers courts of the king, I find that while "judgment of pillory" is recorded in twenty-one cases for selling putrid meat, poultry, or fish, there is not a single instance of a like punishment for selling the unclean meat of the Jews.

In ancient Rome there were overseers appointed to examine the meat in the public markets before it was sold, and butchers were often fined for neglecting the law in this respect. Mr. Charles Reed has given us an example of this from the *Acta Diurna*, or Roman gazette of 585 years after the building of Rome, which, when translated, runs thus:—A. U. C. DLXXXV. Fourth of the kalends of April. The fasces, with Licinius, the consul, and Lertinus, ædile, fined the butchers for selling meat which had not been inspected by the overseers of the markets. The fine is to be employed towards building a chapel to the temple of the goddess Tellus.

In modern times, also, severe regulations have been made in all the States of Europe for the government of this matter, and in many cases particular instructions are given as to the kind of disease which renders meat unfit for human food—it being the practice to examine the animal while alive, and its carcass when dead. This examination is entrusted to properly-qualified officers, who are bound to condemn diseased and putrid meat, as well as the flesh of animals that have died otherwise than by the hand of the butcher; and no meat can be sold until it has undergone such an examination. In this country, however, although there are laws prohibiting the sale of unsound and unwholesome food, yet there is no provision for the systematic inspection of meat, even when it has reached the public shambles. All that the law declares is, that the local authority may, if it pleases, appoint an officer for that purpose; and as the appointment would cost money, and is not compulsory, it is rarely made. Practically, therefore, there is, except in a few places, an almost unchecked traffic in diseased and unwholesome meat; and the worst descriptions of it are generally sold to the poor at night.

Our forefathers made stringent rules to prevent this; for, among other things, they ordained "that butchers shall close their shops before candle-light, and shall not sell flesh meat by light of candle" *(Liber albus)*.

Within the city of London the inspection is performed as carefully as it can be, but, nevertheless, amidst the confusion of business in the early hours of morning, a great deal of unsound meat escapes the notice of the inspectors. In fact, if it were not for the assistance afforded to them by the salesmen of the markets, it would be absolutely impossible to check to any large extent the sale of unwholesome meat; for, in the three markets of the city—Newgate, Aldgate, and Leadenhall, as much as 400 tons of meat are sold daily. It is brought from all parts of Great Britain and Ireland, as well as from Belgium, Holland, and France, and even from the ports of the Baltic. Of this, a large quantity is diseased, and it comes chiefly from our own country towns, where it is a common practice to forward to London everything that is unsaleable at home. I cannot tell what is the actual proportion of bad meat to good, but we seize and condemn about two tons a week, and this is in the proportion of one part to 750. Last year the amount of meat condemned as unfit for food was nearly 129 tons, and in the preceding year it was more than 152 tons. In fact, during the seven years which have expired since the inspectors were appointed under my recommendation, we have seized and destroyed 1,567,810 lbs., or just 700 tons of meat as unfit for human food. Of this quantity, 805,653 lbs. were diseased, 568,375 lbs. were putrid, and 193,782 lbs. were from animals that had not been slaughtered, but had died from accident or disease. It consisted of 6640 sheep and lambs, 1024 calves, 2896 pigs, 9104 quarters of beef, and 21,976 joints of meat: besides which, there were also seized and condemned in the City markets on account of putridity 19,040 head of game and poultry, 207 quarters of venison, and above seven millions of fish, together with thousands of bushels of whelks, shrimps, periwinkles, &c.

It is to be regretted that in the various Acts of Parliament which relate to the condemnation of unsound meat, there are no special rules for the guidance of the officers appointed to investigate this matter—there being only a very loosely worded general provision to the effect that the medical officer of health, or the inspector of slaughter-houses, or the inspector of nuisances, may, at all reasonable times, inspect and examine any animal, carcass, meat, poultry, game, flesh, fish, &c., exposed for sale, or deposited in any place for the purpose of sale, or in preparation for sale, or intended for the food of man; and in case it appears to the medical officer of health, or the inspector to be diseased, or unsound, or unwholesome, or unfit for the food of man, it shall be lawful for him to seize the same, and for a Justice to order it to be destroyed. In this regulation there is no particular reference to the kind of food which is unwholesome, or to the circumstances which render it so, and, therefore, much is left to the discretion of the officer who examines it. In the City of London the practice is to condemn the flesh of animals infected with certain parasites, as measles, flukes, &c.; and of animals suffering from fever or acute inflammatory affections, as rinderpest, pleuro-pneumonia, and the fever of parturition, and of animals emaciated by lingering disease, and those which have died from accident or from natural causes, as well as all meat tainted with physic, or in a high state of putrefaction. A little practice is required to distinguish meat of this description, but, generally, it may be said, that good meat has the following characters:—

1st. It is neither of a pale pink colour nor of a deep purple tint, for the former is a sign of disease, and the latter indicates that the animal has not been slaughtered, but has died with the blood in it, or has suffered from acute fever.

2nd. It has a marbled appearance from the ramifications of little veins of fat among the muscles.

3rd. It should be firm and elastic to the touch, and should scarcely moisten the fingers—bad meat being wet, and sodden, and flabby, with the fat looking like jelly or wet parchment.

4th. It should have little or no odour, and the odour should not be disagreeable, for diseased meat has a sickly cadaverous smell, and sometimes a smell of physic. This is very discoverable when the meat is chopped up and drenched with warm water.

5th. It should not shrink or waste much in cooking.

6th. It should not run to water or become very wet on standing for a day or so, but should, on the contrary, dry upon the surface.

7th. When dried at a temperature of 212° or thereabout, it should not lose more than from 70 to 74 per cent. of its weight, whereas bad meat will often lose as much as 80 per cent.

Other properties of a more refined character will also serve for the recognition of bad meat, as that the juice of the flesh is alkaline or neutral to test paper, instead of being distinctly acid, and the muscular fibre when examined under the microscope is found to be sodden, and ill-defined.

The signs of parasitic diseases are not always observable without careful examination. In the case of the fluke in the livers of sheep, and of measles in pork, and of hydatids in the brain or liver, the nature of the disease is at once discoverable, but it is not so with the smaller measles or cysticerci of beef and veal, and it is still less so with the trichina of pork—the microscope being required to reveal their presence.

And here, perhaps, we may ask, what are the effects of diseased or putrid meat on the human system? The question is undoubtedly very difficult to answer, for while, on the one hand, we have abundant evidence that such meat

may frequently be eaten with impunity, so on the other we have many remarkable instances of injury occasioned by it. In Scotland there is a disease called *braxy*, which attacks the sheep and lambs in spring and early summer. It is the cause of at least half the deaths in the flock during the year. The disease kills the animals very quickly by causing stagnation of the blood in the most important vital organs; and as the carcass is the perquisite of the herdsman, he almost invariably eats it—taking the precaution to remove the offal, and to cut away the darker portions of the flesh where the blood has stagnated. He also salts it before he uses it; and if questioned on the subject he will tell you that the meat is not unwholesome. Every now and then, however, when perhaps the diseased parts have not been entirely removed, or when the salting has not been sufficiently prolonged, or the cooking has not been thoroughly effected, the most serious consequences result from it, insomuch that many medical practitioners who are acquainted with the habits of the Scotch shepherds in this respect, and have seen the mischief occasioned by the meat, declare that braxy mutton is a highly dangerous food for man. Again, it is a common practice with farm-labourers to eat the flesh of sheep affected with staggers, which is a parasitic disease of the brain; and even of animals dying from acute inflammatory diseases. There is a story told on the authority of Dr. Brücke, the Professor of Physiology in Vienna, that some years ago, when the *steppe-murrain* was prevalent in Bohemia, and the infected animals were killed and buried by order of the Government, the poor people dug up the carcasses of the dead bullocks, and cooked them, and ate them, without injury. In this country also, during the prevalence of *rinderpest* in 1863, enormous quantities of meat from the diseased animals were sent to market, and sold and eaten. The same has been the case with the carcasses of animals suffering acute *pleuro-pneumonia;* and if, as Professor Gamgee says, the practice of making salvage out of diseased animals is so common, that, at least, one-fifth of the meat which is sold in the public markets is diseased, we may well ask, in the words of Mr. Simon, how it is that some sort of pestilence is not bearing witness to the fact? How it is, that cattle having all the foulness of fever in their blood, or having local sores and infiltrations, that yield one of the deadliest of inoculable morbid poisons, or having their flesh thronged with larval parasites, do not when slaughtered and eaten produce a general poisoning? Parent-Du-Chatelet has commented in very forcible language on the apparent immunity from disease even when the most foul and loathsome of animal foods are eaten. But is it not probable that the danger is averted by the operation of cooking? Not that the human stomach has not also a wonderful protective power in its own natural functions; for the deadly poison of the cobra or the rattle-snake may be swallowed with impunity. It is possible, however, that these safeguards may fail us occasionally, and then it is perhaps that the most serious consequences arise. I have often had to investigate cases of mysterious disease which had undoubtedly been caused by unsound meat. One of these, of more than ordinary interest, occurred in the month of November, 1860. The history of it is this: a fore-quarter of cow-beef was purchased in Newgate Market by a sausage-maker who lived at Kingsland, and who immediately converted it into sausage meat. Sixty-six persons were known to have eaten of that meat, and sixty-four of them were attacked with sickness, diarrhœa, and great prostration of vital powers. One of them died; and at the request of the coroner, I made a searching inquiry into the matter, the result of which was that I ascertained that the meat was diseased, and that it, and it alone, had been the cause of all the mischief. Dr. Livingstone tells us that when the flesh of animals affected with pleuro-pneumonia is eaten in South Africa by either natives or Europeans it invariably produces malignant carbuncle. He says, indeed, that the effects of the poison were often experienced by the missionaries who had eaten the meat, even when the presence of the disease was scarcely perceptible; and in many cases when the Backwains persisted in devouring the flesh of such diseased animals, death was the consequence. The virus, he says, is neither destroyed by boiling nor by roasting, and of this fact he had innumerable instances. Now, it is a remarkable circumstance that ever since the importation of this disease (pleuro-pneumonia) into England from Holland in 1842, the annual number of deaths from carbuncle, phlegmon, and boils, has been gradually increasing. In the five years preceding that time the mortality in England from carbuncle was scarcely one in 10,000 of the deaths: from 1842 to 1846 there is no record of the disease; but in the next five years, from 1846 to 1851, the mortality rose to 2·6 per 10,000 of the deaths; and in the next five years it amounted to 6·2 per 10,000; and in the succeeding five years to 5·4. In the case of phlegmons, the increase in the mortality is still more remarkable, for it rose from an average of 2·5 per 10,000 of the deaths in the five years preceding the importation of the disease, to 81 per 10,000 in the ten years from 1847 to 1856. The Registrar-General of Scotland has directed public attention to this fact, saying that deaths from carbuncle are on the increase, and that the mortality from it has been getting larger and larger ever since the lung disease of cattle was imported into Scotland. This accords with the experience of medical practice; but as it is very difficult to trace the immediate connection of bad food with subsequent disease, there being so many circumstances to weaken the connection, it is not surprising that differences of opinion should exist as to the morbific effects of unsound meat: nothing, in short, but an experimental inquiry into the subject, as has already been done in Germany in the case of parasitic diseases, will bring the question to rest; and I see no reason why such an investigation should not be made on the persons of those who send diseased meat to the public market for sale; for, as the common defence of their conduct is, that the meat is good for food, they cannot surely object to the penalty of being made to eat it. Here, for example, is a specimen of pork covered with pustules of small-pox; it was seized by one of the city officers on the road to a notorious sausage-maker, and it may, notwithstanding its disgusting appearance, be good and wholesome food; then why not put the question to the proof by making the vendor of it eat it? In the year 1862, when small-pox was prevalent among the sheep in several parts of England it was a common practice to send the carcasses of the diseased animals to the London markets for sale as human food. Later still, in 1863, there was an epidemic of what seemed to be scarlet-fever among the pigs of this metropolis, and their carcasses, with all the bright crimson look of the disease, were invariably sent to market for sale as food. Since then the London pigs have been the subjects of a virulent spotted fever, of the nature of typhus, and these also have been killed in the last stage of the disease, and sold for food. Abundant illustrations of this kind are constantly coming under my notice; and I feel that the question of the fitness of such meat for food is in such an unsettled state that my action in the matter is often very uncertain, and I should like to have the question experimentally determined; for, as it now stands, we are either condemning large quantities of meat which may be eaten with safety, and are, therefore, confiscating property, and lessening the supply of food, or we are permitting unwholesome meat to pass almost unchallenged in the public markets.

As regards the injurious quality of meat infected with parasitic disease there can, however, be no question; and, perhaps, of all such infections, the most terrible is the *trichina* of pork. Fortunately, it is a rare affection in this country, although it is often common in Germany. The pork infected with the worm is generally darker than usual, on account of the irritating or inflammatory action of the creature lodged in the muscles; and when the parasite is encysted the meat presents a speckled appearance—the minute white cysts containing the worm being just visible to the naked eye. Here are specimens of it in

both its cysted and non-encysted conditions; and this diagram represents the appearance of the worm when it is examined under the microscope. It is, as you see, a minute thread-like worm, of about the thirtieth of an inch in length, coiled up in a spiral form; hence its name, *trichina spiralis*. It is generally found in the human subject in an encysted state, when it has passed beyond its dangerous condition, and has become harmless. In most cases, when thus discovered, there is no record of its action, and, therefore, it was once thought to be an innocent visitor; but we now know that while it was free—that is before nature had barricaded it up in the little cyst, its presence was the cause of frightful disorder—killing about 50 per cent of its victims in terrible agony. In Germany, there have been frequent outbreaks of the disease which, for a time, baffled the skill of the most experienced physicians: in fact, we hardly know how long or how often the disease has attacked the pork-feeding population of Europe, for its actual nature was unknown until the year 1860, when Dr. Zencker, of Dresden, discovered the pathology of the disease. Since then there have been several visitations of it, as at Plauen, in Saxony, in 1862; at Hettstadt, near Eisleben, in 1863; and at Hedersleben, near Magdeburg, in Prussian Saxony, in 1866. In all these cases, the same symptoms, or nearly the same, were observed; there was sometimes immediate disturbance of the digestive functions, but more commonly a day or two elapsed before any particular symptom was noticed, and then there was a feeling of lassitude, with a loss of appetite, and pains in the head and back. Then followed a serious disturbance of the alimentary canal, with vomiting and diarrhœa. This lasted for a day or two; and by the end of a week after the worm had been eaten, fever had set in, which became more and more severe, and by that time the young worms which had been hatched in the body, had migrated to the distant muscles, causing the most excruciating pains, so that the patient, fearing to move his inflamed muscles, would lie motionless upon his back; and if he did not die in this state of the disorder nature came to the rescue, and imprisoned the creature by surrounding it with a fibrinous cyst, where it lives for years, being ready at any moment to acquire activity when it is swallowed and released from its cell. Indeed, the way in which it becomes dangerous is this—flesh infected with the parasite is eaten; and the cyst being quickly dissolved by the gastric juice, the creature is set free. Finding itself in the midst of nourishing food, it rapidly grows, so that in two or three days it is three or four times its original size, and may be easily seen like a bit of fine thread with the naked eye. The worms are of different sexes, and they rapidly come to maturity—each female giving birth to from 300 to 500 minute thread-like worms, which immediately set out upon their travels, piercing the walls of the intestines and migrating to distant parts of the body, where they produce the terrible mischief which I have described. Although the pig is the animal which is most commonly infested by it, yet it has been found in the muscles of dogs, foxes, badgers, sheep, moles, hedgehogs, rats, mice, frogs, and most carnivorous birds, all of which must have been subjects of the disease, but none appear to suffer from it like man—even children are less affected by it, for they seem to sleep it away. Fortunately, there is an easy method of discovering its presence in animals, for the most certain seat of the creature is in the muscles of the eye; we have, therefore, only to examine these muscles with the microscope to declare whether the meat is infected or not; and, at the present time, the sausage-makers of Germany have the pork examined in this manner before it is used for food.

Other parasitic creatures, as measles in pork, and the smaller *cysticerci* of beef and veal, are found as little sacs or bladders diffused through the lean of the meat—the *cysticercus* or *measle* of pork being easily seen, for it is as large as a hemp seed—here are specimens of it in a fresh condition, which were seized in the city markets to-day; but the cysticercus of other animals is much smaller, and requires careful exploration to discover it. In both cases the sac contains a little creature with a sort of tuberculated head, crowned with a coronet of hooks, and having a bladder-like tail attached to it. Soon after it is swallowed, the enclosing sac is dissolved by the gastric juice, and the creature being liberated passes into the intestines and there fixes itself by its little hooks, and quickly grows, joint after joint, into a tape-worm. In the case of the cysticercus of pork it forms the variety of tape-worm called *tenia solium*, and in that of beef and veal it produces the *tenia-mediocanellata*. The latter is the most common variety of it in the human intestines, and it is frequently seen where raw, or nearly raw, meat is made use of, as in Abyssinia and in Russia, where children are allowed to suck a piece of raw beef, on the supposition that it has a strengthening property. Each segment of the worm is an independent creature, containing myriads of ova, and when passed by the bowels, it gets with the manure upon the land and is eaten by pigs, oxen, and goats: the ova are then hatched in the stomach; and they pass, as in the case of the trichinia, through the walls of the intestine, and migrate to the muscular tissues of the body, where they become encysted, and form the little sacs or measles which remain dormant for years, though they are ever ready to become tape-worms directly they are eaten. In this manner the creature is perpetuated, first as a tape-worm with joints in the intestines of one animal, and then as a measle or larva in the muscle of another, and then again as a tape-worm. By a like process the *tenia echinococcus*, or little tape-worm of the dog, becomes the *hydatid* in man and other animals. In Iceland the dogs are very liable to this infection, and the cattle and sheep, as well as man, suffer from the hydatid of it. The subject has been well investigated by Dr. Leared, who has shown that the practice of giving the diseased offal of the slaughtered animals to dogs, causes tape-worm, and the dogs drop the segments of the worm, filled with ova, upon the pastures and into running water. By this means they enter the bodies of cattle and sheep, and even of man, and then, as in the last case, the ova quickly become developed, and the young hydatid or larval tape-worm, piercing the walls of the alimentary canal, migrates to distant parts, and finding a suitable nidus for its growth, it slowly becomes a large bladder-like *hydatid*. In the case of the sheep it often selects the brain for its habitat, and produces the disease called *staggers*; in oxen it grows in the peritoneal cavity, and in man it haunts the liver, occasioning frightful disturbance of the system, and causing one-sixth of the total mortality of that country. Here are specimens of the disease from the human subject.

Again, there is another class of parasites called *trematoda* or *flukes*, which infest the livers and intestines of men and herbivorous animals. The most common of them is the *distoma hepaticum* or *liver-fluke* of the sheep. In wet seasons the animal is so constantly infested with them, and suffers so much emaciation from them, that the disease is called the rot. You have before you infected livers which were seized in our public markets this very day, and there is no difficulty in obtaining specimens of them at almost any time. A few years ago (in 1863), when Professor Brown was lecturing on the liability of animals to disease from their present mode of feeding them, he said that once, when he wanted some animals for dissection and applied for them to a large butcher, he received back five or six animals which, though in a bad state of rot, were dressed for the market; and he was told by a certain individual not far from London, that within the space of six months he had killed no less than 750 of such animals, in a state of extreme disease, and he believed they were all sent to market and sold for food. What becomes, he says, of the hundreds and thousands of rotten sheep which we see in the fields? To bury them would require whole catacombs; the real catacombs are the intestinal canals of the human body. The way in which the disease is produced in sheep is curious. Ova are passed from the gall-bladder of an infected animal into the intestines, and so upon the land: finding a moist situation they are soon

hatched into cyliated embryos, which swim about and become developed into cylindrical sacs or minute hydatids; these attach themselves to some mullusc, as a small snail. In wet weather the infected snails crawl upon the grass, and are eaten by the sheep, and then the hydatid speedily changes its condition and becomes a fluke. When it is found in the body of man it has perhaps been drank with water or eaten with some aquatic plant, as water-cress, &c.

Our safety against these intruders is to cook the meat thoroughly.

(To be continued).

Original Communication.

THE RATIONAL TREATMENT OF CONSUMPTION.

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(Continued from page 396.)

BABIES.

With regard to births in Ontario, this year, they occurred in batches. Along the shore of Lake Erie, during the latter end of July and the whole of August, nightly platoons of muling babies were ushered into the world. In the West Indies, the fecundity of the natives is remarkable; in some parts of Jamaica where I have been, a family of ten or twelve is considered moderate. A Hebrew merchant, to whom I made some observations about the size of his family (he had ten), assured me that 16 or 18 was an ordinary number of children to have. The fecundity of a Santa Martana, who was the subject of a septuple birth, is perpetuated in Santa Marta, by the street, in which the remarkable event occurred, being designated—

"La calle de los siete minos."
"The street of the seven children."

It is, to my mind, impossible to witness the advent of so many Pickanninies in the West Indies and Central America, and the remarkable coincidence of six or seven, or twelve women bringing forth at the same time, in two small villages a few miles apart in Ontario, without connecting the occurrence with some atmospheric influences. In Jamaica, New Columbia, &c., the weather is, for the most part, hot and dry, the atmospheric electricity positive, of strong tension, and accompanied with ozone; in Canada a continuance of such weather is rarely found. No doubt the heat of July and August equals that of the tropics, but a high temperature is familiar to the creoles and the acclimatised, but is not so to the Canadians, and consequently the enervation which it induces weakens, or almost neutralises, the otherwise tonic vivifying procreative producing effects of the positively electrified atmosphere of July and August. In October and November, however, the heat of the Indian summer, less intense than that of July, but relatively as high as that of Jamaica is to the natives, by its stimulating effects assimilates the climatic conditions of Canada to those of the tropics, and hence the eruption of babies in July and August this year, 1867. I dare say a close observation of the weather in England would establish the same relationship—similar cause, like effect. In Jamaica, and other West Indian islands, where a peculiar facility is offered to this kind of observation, I do not hesitate to say that the heat, electric tension, and ozone, stimulate the procreative organs to such an extent that the animal passions predominate over the maternal feelings—hence the large number of births and high infant mortality. This, more especially, applies to the coloured population. That a similar influence is felt by the whites is less easy of recognition, because their natural impulses are restrained by education, moral culture, society, &c., bridles insufficient to restrain the people of colour. That these are frequently thrown aside, even by the whites, cannot be denied. Midway between Lucie and Montego Bay, the traveller will observe the ruins of a house which, at one time, must have been of palatial magnificence, the property of an heiress, peerless as Juno, lovely as Venus, charming as Circe, but more cruel than Medea, whose life of debauchery, duly chronicled by a biographer on the estate, was terrible in its depravity, and the more hideous when her beauty and loveliness are taken into consideration, with her cruel, murderous, and licentious disposition. She was put to death by her slaves, the sharers of her revels by night, the recipients of her lash by day.

But though a ship of war presents unusually favourable opportunities for ascertaining the electrical condition of the atmosphere, it is not all times possible to do so, and is never, under any circumstances, so easily ascertained as its ozonic condition, and as its state of ozonization is intimately connected with its electric condition, and this with those changes whereby the thermometer and barometer are affected; and, moreover, as actual and repeated observations had enabled me to connect the exaggeration of the phthisical symptoms which occurred when the ozonometer remained unaffected with the absence of ozone, as well as the improvement which took place when it was detectable with its presence, I have been led to look upon it as an agent essentially necessary to the proper oxidation of the blood. The well-known advantages of a sea-side residence for consumptive patients lends confirmation to this view, since, in all probability, its salubrious effects are in a great measure owing to the ozone which, according to Admiral Fitzroy, is always present in a sea-side atmosphere, a statement with which my own observations on the coasts of Mexico, Cuba, and Jamaica, are in accordance. The aggravation of the symptoms occasioned by its absence is, therefore, I presume, owing to a diminished elimination of carbonic acid, which adds its stimulating action on the heart to those already existing. Significant of the inadequate supply of oxygen in the blood in phthisis is the immense advantage derivable from a residence in an elevated locality, such as on the sides of the Andes, on the Anahuac heights in Mexico, or the hills in Jamaica, if the observations of Jourdanet be correct. At an altitude of 2000 mètres, he says, "a man, whilst taking in the usual amount of oxygen, gives out a larger amount of carbonic acid than he would at the ordinary level." Dr. Prout also says—"carbonic acid is given out in greater quantity when the barometer is low, a condition which obtains in elevated localities, the air there is always pure, bracing, and free from moisture." Pregnancy is considered antagonistic to phthisis, and this is usually advanced in favour of the hyper-oxidation theory—the blood, they say, is more venous in consequence of the diminished capacity of the chest, and the excess of carbonaceous elements resulting therefrom will obviate the vicious effects of excessive oxidation. But the opposite must really be the case, since, according to Andral and Gavarret, the quantity of carbonic acid exhaled during pregnancy is remarkably increased. The blood must, therefore, be rather in a state of hyper than sub-oxidation.

After parturition the disease is said to be especially prevalent, the reason which I would suggest for this is apparent to all, and distinctly corroborative of the theory I advance. During the period of lactation, the baby sleeps by night in its mother's arms, cuddled closely up to her fond bosom, the loving maternal head bent gently towards it. The child's breath will, therefore, instead of passing off directly into the atmosphere, be thrown against the mother's breast, and reflected upwards, to be drawn into her lungs during inspiration, the imperfect decarbonization which will result will, aided by anxiety, broken rest, fatigue, and exhaustion, be amply sufficient to institute tuberculosis. I may instance the benefits derived from the use of chloras potassæ as another fact corroborative of the defective oxidation theory. This medicine was at one time vaunted as a specific in phthisis, and, as such, indiscriminately used, abused, neglected, and depreciated. Its action is not specific, but purely chemical, and consequently

intelligible, its beneficial effects depending on its furnishing a large proportion of oxygen.

I will now pass on to the consideration of those data on which the hyperoxidation theory most immediately rests, viz.—the increased temperature, emaciation, and the benefits derived from fats, oils, and alcohol. First as to the

ELEVATED TEMPERATURE.

It is natural to suppose that as animal heat is in a great measure produced by combustion, an increase of heat denotes increased combustion, but this implies an increased assumption of oxygen, for which a corresponding augmentation in the quantity of air inhaled in a given time is absolutely essential. The rapidity of the respiratory act in phthisis would warrant this view, were the integrity of the lungs preserved. But we must bear in mind that this is not so. A man in health, whose vital capacity is 225 cub. inches, breathing 16 times per minute, and changing 22½ cub. inches of air in each respiration, "the mean between the minimum and maximum given by Mr. Coathupe, 20—25, will change 360 cub. inches per minute, but in phthisis the vital capacity is diminished 93 cub. inches. Therefore, if we say the vital capacity in health is to that of phthisis as the breathing air of health is to that of phthisis, *i.e.*—

$$225 : 132 : : 22\tfrac{1}{2} : 13\tfrac{1}{2}$$

we find the breathing air reduced to 13½ cub. inches, and the phthisical patient will, accordingly, have to breathe 27 per minute to inhale as much air as a man in health. But this is supposing that all the lung which remains sound is inflated by each inhalation, but this cannot be so except by a forced inspiration, because there are generally pleural adhesions, pleuritis, pneumonitis, or neuralgic pains, to render the breathing shallow, so that, in fact, 36 or 40 respirations would be requisite in phthisis to maintain the temperature of the body at the ordinary height. The increased heat, therefore, is no more owing to increased combustion in phthisis than is the elevation of temperature observed after death from yellow fever to increased activity! The combustion theory of the heat produced by inflammation has received its death blow from Dr. Beale, in his admirable lectures published in the *Medical Times and Gazette*. He says, page 594, June 10, 1865:—"Now, so far from inflammation depending on increased oxidation, it would seem that the oxidising process is greatly diminished in intensity or altogether stopped. I think a careful consideration of the facts render it more probable that the rise in temperature is due to the increased multiplication and germination of the masses of germinal matter, than to oxidation. The process of germination generally seems to be intimately associated with the setting free of heat, but it is very doubtful if it depends upon oxidation, since it is proved by observation that the conditions favourable to free oxidation are not present." Eschewing, therefore, the theory of increased combustion, we find an explanation of the increased heat of the body in phthisis, in the germination and multiplication of the tubercle cells, in the retention of heat produced by the impeded action of the sweat glands, the cooling effects of evaporation from the surface of the body being thereby lost in the more rapid circulation of the blood through narrowed channels, occasioning increased friction, and in the greater activity of the sympathetic and vagus nerves. These two latter seem to have a very powerful influence in keeping up the heat of the body, for I found that the temperature fell 4°·5 in seven days on administering a medicine which calmed the nervous excitation, tranquilised the circulation, and promoted diaphoresis.

EMACIATION, FATS, OILS.

The removal of fats which takes place in phthisis, and the acknowledged benefit which follows their internal use, seem to militate strongly against the defective oxidation theory, since their use in the animal economy seems to be to furnish materials for combustion, containing as they do carbon and hydrogen in large proportions; were there really a condition of hyperoxidation in the system, the increase of fuel should augment the conflagration, but the administration of fats and oils does not raise the temperature in phthisis. Moreover, it must be borne in mind that the use of fat is not merely to support combustion, that it is one of the essential constituents of nerve tissue, that it is a normal element of the blood, and is always present in healthy bile. Is it, therefore, a matter of surprise, that the small supply of fats thrown into the blood by the lacteals in the earlier stages of phthisis should be appropriated to the renewal of the cerebrine, phosphorised fat, seroline cholesterine, &c., lost in the wear and tear of the tissues? rather than be applied to the purposes of combustion, for which that stored up in the omentum, or hid away amongst the muscles, seems to be reserved. Late Alpine experimenters show that muscular heat and muscular force are not altogether due to direct oxidation of the muscular tissue, but that the hydrocarbons are made contribute to it. Emaciation would therefore seem to result rather from diminished supply than excessive waste; for when the supply is increased, that is when the removal of excessive acidity enables the patient to digest fats, he gains rapidly in weight. On the other hand, when the elements of imperfect oxidation increase to such an extent, that they are thrown on the liver and kidneys for elimination, the elements of fat are synthetically combined, and a fatty liver results. We may therefore assume that fats and oils are useful in phthisis, because they furnish materials for repair to the nerves and blood, &c., administer to muscular force, and, consequently, become tonics of the first order.

ALCOHOL.

Neither do the beneficial effects of alcohol in phthisis warrant us in assuming that hyperoxidation exists. Since the experiments of L'Allemand and Perrin have shown that it does not belong to the category of respiratory foods, as stated by Liebig and others, that it does not undergo progressive oxidation, that it does not produce change of colour when mixed with blood in equal proportions at 55° centgr., that the elimination of carbonic acid instead of being increased is rather diminished by its use, that it exhibits a peculiar electivity for nerve matter, and that it is rapidly thrown out of the body by the lungs, skin, and kidneys; any benefit derivable from it must therefore be due to its action on the nervous system. This action has been much discussed, lauded as tonic, decried as toxic, recommended as narcotic, or employed as stimulant, its administration has been for the most part empirical rather than scientific. The great preference it exhibits for nerve tissue, and its remarkable affinity for water, make it highly probable that its effects are owing to a modification of nerve power produced by an abstraction of a portion of the water which enters largely into the composition of nerve substance. The brain and spinal cord have long been compared to a galvanic battery, and the nerve influence to the electric fluid. Its generation, resulting from the vital and chemical actions, whereby the change of nerve tissue is effected, is liable to be modified by causes operating through the blood, or through the brain, by the stimulus of the will setting up increased action, or through causes pertaining to the atmosphere. Alcohol acts through the blood: passing *vid* the stomach and portal vein into the circulation, it is taken up par preference by the brain-matter, from which it abstracts a portion of its water; condensation and a liberation of heat ensue—phenomena so closely associated with electrical development that we may presume, that from their action on the great battery—the brain, electricity results, the amount developed being in proportion to the action produced; when a small dose of alcohol is taken, the electricity produced, being in direct ratio to the heat generated in the brain-cells, will be small. Under such circumstances its action on the brain and general system, closely resembles, *cæteris paribus*, that of a galvano-electric current on the muscles of the forearms: the feeling of bienveillance, the sensation of comfort in

the region of the solar plexus, the flow of genial ideas and more facile movements of the tongue, being the analogue of the pleasurable sensations which run tickling through the median nerves, and the slight muscular movements of the flexors of the forearms. When the action is more energetic, a more copious evolution of electricity takes place; the intellectual faculties are more stimulated, the muscular strength is increased, and the circulation accelerated, at least, primarily so. A still greater evolution, stimulating more energetically the cineritious substance, causes the ideas to be engendered with such velocity, that the partially overpowered conducting and expressing media are unable to meet the increased demand on them, and the ideas tumbling over one another in the mind, produce the partial incoherency characteristic of that stage of inebriety elegantly yclept "tight," "screwed," "entre deux vins embriagado," &c. In this stage those portions of the hemispheres which rule the dominant phases of the mind are most stimulated, and ideas are evolved in accordance with the characteristic traits of the individual. Thus, one man will sing, another quarrel, a third grow lachrymose, &c. A still more violent action, such as results from a very large dose of alcohol, or from repeated bumpers, liberates such an amount of electricity, that the normal functions of the brain are overpowered and dead drunkenness results, just as a single, sudden, and violent aërial vibration, or a succession of less powerful ones will, by producing an inordinately strong impression on the auditory nerve, suspend its functions, overpower it, and produce deafness. In a similar manner, too strong an impression on the filaments of the olfactory will render it unable to communicate to the brain the impression of odours, and smell becomes lost. A strong application of the galvanic current to the vagi will stop the heart, or to the phrenic, will suspend the play of the diaphragm. The functions of the brain are similarly removed by too strong a stimulation, whether that be applied through its cineritious substance, as by exciting passions, or through the electricity generated in the brain-cells by alcohol. In the one case the superabundant electricity may find a vent in an hysterical paroxysm, spasms, or convulsions, before it has had time to overpower the cerebral functions. In the other, a timely reduction of the electric action will avert the loss of consciousness witnessed in drunkenness. Cold water copiously drank will accordingly prove the surest restorative to sobriety. When the mental operations are completely overpowered, and volition, which presides over the direction of the nerve-currents, *hors de combat*, a strong impression made on the surface of the body, such as by cold affusion, will, by causing the medulla oblongata to direct a current of nerve-force through motor nerves, give vent in this way to some of the superabundant electricity, relieve the oppressed brain, and restore to sobriety. On the same principle, sousing in cold water offers the most rational and efficacious method of treating insensibility produced by lightning. Further analogy may be traced by observing the similar action of alcohol and electricity in various states of the body. Thus, electricity has been employed successfully to remove spasm. Hutchinson treated tetanus by alcohol with complete success. Certain kinds of neuralgia are amenable to electricity. I have treated the same with the most rapid and satisfactory results by rum-punch. Faradisation of the mammæ of a delicate mother, whose shattered nervous system soon after accouchement is unable to furnish an adequate stimulus for secretion, will rapidly gladden her eyes by the copious lacteal secretion it will occasion. I have seen beer produce the same results equally rapid and gratifying. Its action could not be merely stimulant; were it such we might expect tea, coffee, or ammonia to act equally well: but such is not the case. In the following case the identity of their action is, I think, illustrated:—

N. Fleming, æt. 31, A.B., H.M. gunboat "Britomart," came under my care on October 3rd, for paralysis of the right hand, which came on suddenly from no tangible cause that morning. He denied having been drunk the night before, and was positive in his statement that he did not sleep on it. I treated him with galvano-electricity for a week, with much benefit. He then went to sea in his ship for four days, and as I belonged to another gunboat, the electricity during that time was necessarily omitted. On the evening of the fourth day his ship returned, and he again came under my care. No improvement had taken place; on the contrary, the paralysis was greater than when the electricity was omitted. The sensation was good, but the muscular power, particularly of the extensors, was very weak. He could lift a weight, but it would slip out of his hand unconsciously. His ship was to proceed on a cruize again early the next morning, so I did not re-apply the galvanism, but resolved to try the electrical-producing effects of rum, and ordered him half a-gill four times a-day in water. To my surprise, on seeing him again in three days, his hand had so much improved that he could lift and hold heavy weights, and perform all his duties but rifle-drill, with which a still trivial weakness of the extensors interfered. This totally disappeared in a few days longer.

Again, in the prostration which succeeds acute diseases, such as erysipelas, remittent yellow fevers, or insolation, when the heart beats range between forty and fifty, good food, bark, iron, or ammonia will produce beneficial effects trivial in comparison with good food and a bottle of porter. The fluttering of the heart in women at the climacteric period, and the trembling of the hands succeeding a debauch, depending on an equally enfeebled nerve-power, are similarly amenable to alcohol.

Dr. Caplin cures the cold stage of ague by electric agency, through the medium of a hot-bath. Guyot gave rum or Geneva with like success. Alcohol destroys the coagulability of the blood; so does lightning. The best indication for the administration of alcohol would therefore seem to be an insufficiency of nerve-force. Nervous irritability is not synonymous with a superabundance of nerve-power, but frequently with the opposite condition, as in phthisis. In this disease, therefore, it reinforces the nerves by the generation of supplemental electricity: the pulse as a consequence becomes slower and stronger; the nerves of organic life being strengthened, remove arterial contraction and capillary congestion; the organic cuticular fibres are relieved of their tonic-spastic condition; the heart's action becomes slower; perspiration is promoted, and the body is cooled.

(To be continued.)

Hospital Report.

GUY'S HOSPITAL.

A CASE OF THE HÆMORRHAGIC DIATHESIS.

Under the care of Mr. ARTHUR E. DURHAM.

In our notice of the Guy's Hospital Reports for this year, we promised to abstract now and then a case for this department of our journal. The following case of stone in the bladder, in a patient of the hæmorrhagic diathesis, in which lithotomy was performed, seems to us of great interest, and we accordingly select it as a commencement:—

James Joy, æt. 3½, was admitted into Charity Ward under my care on the 9th April, 1866. He had had symptoms of stone in the bladder for four or five months. He was a fair child, with clear pale complexion, light hair and blue eyes. He had much of that general prettiness of aspect so often observed in children with stone in the bladder. At the period of his admission to the hospital his sufferings were evidently very severe. A roughish stone, apparently of medium size, was readily detected by means of the sound. The mother was told the nature of her child's malady and informed as to the proposed method of cure. She at once expressed a strong conviction that the child, if operated upon, would certainly die; "for,"

she said, "three of his brothers have bled to death from very little wounds—it is in the family." She, however, freely consented to anything being done that should be thought right, inasmuch as she felt sure that the child could not live long as he was, and that while he did survive his life would be prolonged misery, not only to himself but to others. Notwithstanding the unpromising character of the case, it appeared to me right to operate. This conclusion was confirmed by the opinions of my colleagues.

Accordingly, on the 17th April, I performed lateral lithotomy on the straight staff in the usual manner, and extracted a lithic acid calculus about as large as a filbert. The operation was very quickly performed. The stone was caught immediately and withdrawn without the slightest difficulty. There was comparatively little hæmorrhage. So little, indeed, that the remark was made by Mr. Birkett, that I need not have frightened myself about bleeding, for there appeared to be less than usual.

The operation was performed about two P.M. I watched the child until five o'clock. All oozing of blood had then ceased. As far as I could judge no more blood had been lost than in ordinary cases,—less indeed than I have seen in many. The child was pale and rather low, but apparently comfortable. A little wine was given. Soon afterwards slight hæmorrhage recurred. The surface of the body became quite blanched. In spite of the measures taken oozing of blood continued with certain periods of intermission. Every effort was made to stimulate and support the vital powers; but the child sank rapidly, and about 8·30—that is, about six hours after the operation—he died.

A post-mortem examination was made seventeen hours after death by Dr. Moxon.

A slight bruise-like mark was observed over the anterior superior spinous process of the ilium on the right side, also a smaller one on the dorsum of the left foot. There was marked lividity of the forehead, especially above the left eyebrow. This was found to be due to effusion of blood under the occipito-frontalis, and over the temporal fascia. There were two distinct patches, one about the right supra-orbital nerve, and one about the left, the latter being the larger. There was no external bruise of the skin, nor any injury to bone.

The gums were pale, not swollen.

The lungs collapsed very completely, and were anæmic.

The thymus was well developed.

The heart was firmly contracted, and the cavities contained small firm clots.

The blood on microscopic examination showed an excess of white corpuscles.

The intestines contained little or no air, and were soft and pasty to the touch, being anæmic. The mucous membrane of the stomach and intestines appeared white.

The left kidney was normal. The right appeared very small, and lobulated to a marked extent. The surface was slightly granular.

The bladder was firmly contracted. The incision made at the operation appeared theoretically perfect. Lying in it and distending it to a certain extent was a clot of firm consistency. On either side there was a little blood in the areolar tissue, but not more than one or two drachms.

Warm water was injected into the left internal iliac artery. Very considerable pressure was employed before any oozing or escape of fluid from the wound took place.

Family History.—Subsequently to the death of the child, the mother gave the following account of her family history: she said, "As far back as my own grandmother's generation, and from hers downwards, the male children have been subject to great bleeding from slight causes. Three of my own brothers died before they were four years old, from loss of blood. Of my own offspring, three have already died from the same cause. This one makes the fourth." The circumstances giving rise to the hæmorrhage in the first three children were as follows:—

1st. A boy, æt. 13 months, had an abscess over the knee. This was lanced. Hæmorrhage followed, and death occurred in five hours.

2nd. A boy, æt. 7 years (the eldest of the family), bit his tongue one Tuesday evening; it bled constantly until the Sunday morning, when the child died, evidently from loss of blood.

3rd. A boy, æt. 3¼ years, fell down and cut his gums. Death, caused by continued hæmorrhage, occurred in four days.

In each of these cases various means were employed for the arrest of the hæmorrhage, but without avail.

With respect to the little boy whose case forms the subject of this paper, the mother stated that about twelve months before his admission to the hospital he had bled profusely from the gums. This she attributed to teething. Some months later, she noticed a small lump on the child's back, which came suddenly and disappeared gradually, being coloured like a bruise as it dispersed. At other times, also, she had seen coloured patches about the child's skin in various parts of the body.

The mother further stated that a similar tendency to bleed from slight causes existed in the male children of her sister; but hitherto none of them had died. The female members of both families appeared to be quite free from any such tendency. This was also the case, so far as she knew, in previous generations.

Literature.

PRINCIPLES OF CHEMISTRY.[1]

ORIGINAL and learned is the only verdict that any dispassionate reader can pass upon this work. The object of the author seems to have been mainly to introduce to the French chemical student the theory, or rather we may say, theories that have been built up upon the discoveries of Cannizzaro, Gerhardt, Hofmann, and Williamson. Strange to say, according to M. Naquet, these theories were not taught in that country. It seems that in spite of the labours of M. M. Gerhardt and Wurtz existing in France, a system of chemistry quite foreign to the ideas of the old philosophers, but compatible with the works of those chemists, was slowly making its way through the whole of Europe, except in the soil that gave it birth.

"This book," says the author, "marks a period—it is chemistry making a halt in the midst of its conquests, and contemplating at the same time the road already traversed, and the goal to be attained."

M. Naquet also states that his professorship (*professeure agrégé a la faculte de medecine de Paris*) authorizes him in thinking it will become a *classical* text-book for the student of medicine. We presume that M. Naquet means by inserting the adjective prefix, that it is the work for the dilettante medical man, or the pure physiologist. If this is not his meaning, we cannot help thinking that the works deal too much with the higher walks of the science, and is hardly practical enough for a general adoption as a text-book. It is the author's opinion that the student neglects too much the knowledge of the laws that regulate the facts, and gives useless attention to the facts themselves. We are, however, of opinion that M. Naquet falls into the opposite extreme. As chemistry now stands it is purely a practical science, to be studied by facts, and through facts. Intense devotion to the theories of the science is the vocation of a pure chemical student, not the particular calling of a student working at a collateral science.

The style in which this work is written is bold, and at first sight might seem rather egotistical; it is, however, simply the self-confidence of a man who is really writing upon a subject that he understands, and it is quite refreshing to take up a work which is not written in the old stereotyped style of our English manuals.

After reviewing the atomicity of radicals (p. 32), and explaining M. Hofmann's designation of "quantivalence," he dwells at some length upon M. Delavaud's theory, that radicals of uneven atomicity can never exist in the free state without becoming doubled. He points out, however, that there are the molecules NO_2 and NO (hyponitrous acid, and binoxide of nitrogen), which would be exceptions to M. Delavaud's theory,

1 Principles of Chemistry. Founded on Modern Theories. By Mons. A. Naquet. Translated from the Second Edition by W. Cortis. London: H. Renshaw. 1868.

and goes on further to state that such theories go beyond the hypotheses permitted in experimental sciences. They are metaphysical—"In the experimental sciences theories ought only to be the generalization of facts which they ought never to exceed. M. Delavaud's theory exceeds facts, since it supposes subatoms, whose existence is not demonstrated. If such theories were allowed, a thousand might be propounded which would be as justifiable as that of M. Delavaud, and which would reciprocally oppose each other. Instead of confining ourselves within the limits of experiments, we should arrive at empty reasoning like the metaphysicians of the middle ages." We agree with M. Naquet here, but think that his remarks hardly tally with those already criticised, and also appertain to many of the other things belonging to modern chemistry, *e.g.*, such as would be entailed by the acceptance of the graphic notation (M. Kékulé's) which he is now attempting to establish. An excellent specimen of M. Naquet's powers of compilation and arrangement will be found in the section on solubility (page 62).

Under the head of oxygen M. Naquet reviews the present state of our knowledge of ozone as follows:—

"When oxygen is transformed into ozone, a contraction is observed in the mass, but when the ozone which the gas contains is absorbed no contraction is produced.

"Two theories may account for this phenomenon. The first consists in admitting that the ozone is in such a state of condensation that its disappearance by the side of a great excess of oxygen gives no appreciable diminution of volume. By the second we suppose a molecule of ordinary oxygen $\left.\begin{matrix}O\\O\end{matrix}\right\}$ to be united in the ozone to an atom of allotropic oxygen, thus—$\left.\begin{matrix}O\\O\end{matrix}\right\}$ allotropic or negative oxygen, with contraction to $\frac{1}{3}$. The ozone will then contain a volume of ordinary oxygen equal to its own. If we cause reaction to take place between ozone and a body which is oxidized by it, there remains ordinary oxygen which occupies exactly the volume which the ozone occupied; there is no contraction.

"M. Schœnbein's antozone (for he admits another allotropic state of oxygen, which he calls antozone), would be $\left.\begin{matrix}O\\O\end{matrix}\right\}$ positively electrified oxygen."

Both the metalloides and metals in this work are classed according to their atomicity, and these atomic weights are deduced in every case from Dulong and Petit's law on specific heat. M. Naquet was not aware of M. Roscoe's recent researches upon vanadium, and therefore he places that substance amongst the third class, or triatomic metals, viz., gold, vanadium, and thallium. It is, however, from the researches quoted above, evident that this element must be placed in the group of pentatomic metalloids, which included the elements nitrogen, phosphor, arsenic, antimony, &c.

The second inorganic part winds up with an appendix, in which Prout's hypothesis of the atomic weight of all simple bodies being multiples of the atomic weight of hydrogen is considered. He opens with the remark that, for a long time philosophers have been disposed to admit that all matter is one and the same, and that the numerous substances we see are only different manifestations of it. Manifestations, the diversity of which depend upon the degree of its condensation. This idea, well explaining the fact that gravity acts equally on all bodies, and answering moreover to the idea we have rightly or wrongly of the simplicity of the great laws of nature, is introduced into science. A very short time since an English chemist, Mr. Graham, admitted in speculations on the constitution of matter, that chemical atoms are formed by an agglomeration of particles smaller than themselves, and identical, to which he gave the name of ultimates. These ultimates are animated by vibratory movements, the variable length of which in different bodies causes the differences observed between these. Previously Prout wished to give to this theory an experimental proof. He asserted that the atomic weight of all simple bodies are exact multiples of the atomic weight of hydrogen. M. Dumas, in 1859, modified this by saying that the atomic weight of all bodies are the exact multiples of that of an unknown body, which would have an atomic weight four times smaller than hydrogen.

M. Stas, however, has proved two things which materially affect the question. He proves the justness of Wenzel's statement, viz., the invariability of the proportions in weights of the elements forming chemical combination; but, at the same time, conclusively proves that the atomic weights of the elements are not simple multiples of hydrogen.

In the organic part, we may mention, as points of interest to the chemist, the author's remarks upon the classification of organic chemistry, and the tables of homologous bodies, exhibiting Gerhardt's, Bertholet's, Cahour's, and Pelouzes' nomenclature. The account of non-volatile alkaloids will be found rather more full than ordinarily given, and a part is specially devoted to the action of reagents on organic compounds generally.

In the introduction to the organic part, the author says, that some years ago it was believed that life was necessary to the formation of the proximate principles of living bodies. Hence arose the division of chemistry into organic and inorganic—one of the principles of the urine—urea—having been synthetically or artificially produced, the barrier which separated the two chemistrys was overcome, and it became possible to hope that some day all the organic products might be prepared synthetically. This hope has to a great extent been realized by the labours of M. M. Kolbe, Berthelot, Wurtz, Kékulé, Perkins, Simpson, and others, at the present day, therefore there are no longer two chemistrys. *Organic* bodies must not however be confounded with *organized* bodies. The study of organized bodies does not belong to the domain of chemistry, but rather to biology. If at this point biology approaches to chemistry it is entirely to borrow light from it, as chemistry itself borrows from physics, and physics from mathematics, without each ceasing to be a distinct science. It is solely because this distinction has not been universally perceived, that in almost every treatise upon chemistry, articles are devoted to the blood, muscles, etc., which ought only to be contained in works on physiology. So much for M. Naquet. In conclusion, we must say a few words as regards the translator's part.

We have not had the pleasure of meeting M. Cortis before as an author. If it is his first essay it is certainly a most creditable performance, and one which lays the English chemical world under some considerable obligation. He is one of those gentlemen who could discriminate as regards the labour to be performed, and also possessed the ability to do it efficiently. He states that one of the inducements to him to translate the work was to introduce Kékulé's diagrams. Although we do not admire this system much, it will no doubt add interest to the book, as no other English work gives an account of this method. It bears some resemblance to W. Crum Brown's system of graphic notation.

There are a few typographical errors, but very few for so large a work, and the printing and general "get up" of the book are excellent. It would, however, have been better if the diagrams had been re-engraved with English words instead of French.

C.R.C.T.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 13, 1868.

THE SCOTTISH UNIVERSITIES AND THEIR MEDICAL GRADUATES.

WE have followed so regularly every phase of the questions that have arisen since it was proposed to grant representation to the Scottish Universities in Parliament, that our columns will be expected to contain a summary of the latest movement. Accordingly, we proceed to state that the memorandum which it was resolved to prepare at the late General Session of the St. Andrews Graduates'

Association, has already been drawn up, and exhibits, as clearly as possible, the claims of the Doctors of Medicine to a seat in the General Council of their University. It remarks that, as a rule, Honorary Degrees do not give a voice in the government of the University conferring them, nor a vote for a Member of Parliament when the University returns one. Whether this should be so we do not pretend here to decide, since it does not affect the question at issue. It might, however, be considered a good thing for no restriction to be made, as such a relaxation would tend to limit the issue of Honorary Degrees, and no one would grudge the slight additional privilege in the few cases in which they were conferred as a recognition of high attainments.

We are concerned with ordinary degrees. These (if Masters' of Arts or superior) entitle the holders to be Members of the General Council, or Convocation, or Congregation, or Senate of the University, and to vote for the Member of Parliament. In some instances, Bachelors of the several faculties enjoy these privileges, and, in our opinion, this should be the universal rule.

The Medical Faculty in the Scottish Universities is a remarkable exception to the general rule. The other Faculties have monopolised the power, and have excluded Doctors of Medicine from a participation in the government of their University. The proposal to grant Parliamentary representation to these bodies, has roused the Medical Graduates to a sense of their rights. They have made their voice heard, and we rejoice that the Government Bill recognizes their just claims.

It is a sad instance of the illiberality sometimes met with, that the General Council of St. Andrews, a body of 368 educated persons, should oppose the admission of the Medical Graduates to equal rights with themselves. Certainly this says very little for the liberal training of St. Andrews.

The Medical Graduates of this ancient University are much more numerous than those of the other Faculties. They have contributed much more to its revenues, and they may be said to have some claim on the Government on account of the stamp-duty it has always imposed on their diplomas.

From 1836 to 1866, no less than 1993 persons obtained the degree of M.D., while only 242 graduated in Arts in the same period. The fees paid to the University by these Doctors of Medicine, amounted to £33,331, 5s.

The amount contributed by the Graduates in Arts was £762, 6s. The Government exacted as stamp-duty, £19,930 from the Medical Graduates, but let the others go scot-free. These figures are interesting, as showing the impropriety of the smaller number desiring to retain the monopoly of representation of the University. There has, we think, never been a more baseless pretence than that of the Graduates in Arts to ignore those in Medicine, or affect any superiority to them. Nothing but the blindness that too often affects those in possession, can account for the unwarrantable opposition that has been raised.

The transparent fallacy that residence ought to be demanded to confer the franchise, is simply ridiculous, when it is remembered that the University of London, the constitution of which is the most allied to that of St. Andrews, requires no residence in any Faculty. St. Andrews makes no provision for a medical curriculum within its own walls. It therefore cannot demand it from candidates for its M.D. degree. If residence be essential, then St. Andrews writes its own doom, for it would have no right to grant the M.D. to those who could not reside, and as it is chiefly a medical University, this privilege taken away, it would speedily sink into insignificance. It is useless to conceal the fact; those in possession are jealous of the intrusion of the medical graduates. But they should beware lest their jealousy destroy their hopes. It is the Medical Faculty which has in this, as in the other Scottish Universities, conferred the greatest renown upon them. It is to the influence of the Medical Graduates that the concession of Parliamentary representation is to a large extent due. Take away the Medical Faculty, and there is likely to be raised a voice against granting a member at all. Then the jealous Council will reap a reward it little anticipates.

There is a practical point connected with this question which should not be overlooked. Already anxious candidates—counting on the chickens that are being so slowly hatched—have solicited promises of votes. We warn graduates against being betrayed into hasty promises. As we have said, there are other candidates who will come forward at the proper time. There are medical candidates too, who think it premature to address an elective body not yet created, but who will not wait long after the royal assent shall have been given to the bill. It is well, therefore, to wait. But there is this further reason for delay. No candidate has yet pledged himself to support justice on this or any other question, and therefore in supporting any of those who have yet addressed them, the graduates may be voting for their own enemies.

To return to the arguments that have been advanced. We have already disposed of the plea of residence. We may add that the non-residential doctors of medicine are diminishing in number since 1863, since which only ten such degrees per annum are to be granted. Whether this new regulation is a wise one, with the example of the London University before us, may well be doubted; but we have not now space at our disposal to discuss it. We maintain merely that the medical faculty is the most important, its graduates the most numerous; that all are worthy of the franchise, and that the attempt to deprive them of it is as unwise as it is unjust. The rule of residence or non-residence ought to make no difference at all in the privileges which the degree once granted confers, and the raising of this point is only throwing dust in the eyes of those who are not familiar with the facts.

As to other arguments, we add the following extracts from the memorandum alluded to at the commencement of this article, and which will immediately be in circulation:—

"Seeing then that the Doctors of Medicine of St. Andrews are so numerous, and have complied with all the regulations of the University, their long-continued exclusion from the General Council must be considered unjust and unwise. But the injustice becomes much more evident now that St. Andrews in conjunction with the University of Edinburgh is about to be represented in Parliament. The Memorandum[1] submitted in February last to the Chancellor of the Exchequer set forth the claims of the Doctors of Medicine to the franchise, and the justice of the demand is now abundantly acknowledged. It could not be otherwise. It could not be seriously maintained that any body of educated men is fairly represented by the votes of one-fourth of the number of its members. But the same reasons, which show the right of the Medical Graduates to a vote for the Member of Parliament, are no less convincing proofs of their title to a seat in the General Council of their University; for it is only as Members of the University that they can claim the vote; and if they be members of the University, they cannot justly be

1 Printed *in extenso*, and commented on, in THE MEDICAL PRESS AND CIRCULAR, February and March.

excluded from the General Council, the common ground on which all Graduates should meet and from which all legislative action should arise.

"Springing from the argument based on want of residence, is the plea of want of interest on the part of the Medical Graduates in the welfare of the University. This needs little reply. Up to the present time the Doctors of Medicine have had no chance of evincing any interest in the University, for they have been unnoticed and unrecognised by it. But the rapid growth of the St. Andrews Medical Graduates' Association which already, before it is a year old, numbers upwards of 500 members, and whose professed object is to obtain for the Doctors of Medicine a seat in the General Council of the University and a vote for its representative in Parliament, is sufficient answer to the charge. The Medical Graduates are not, and cannot be, regardless of the interests of their University. Their reputation, and its, stand and fall together. With the credit of the University falls the credit of its degree, and the rank which it confers on its holder.

"Again, the admission of the Doctors of Medicine to the General Council has been opposed in the University itself on the ground that the number of the Medical Graduates is so great that the other Faculties would be overwhelmed by them. If the Doctors of Medicine have a just claim to be members of the General Council their number can but add to the injustice of their exclusion; and should be no bar to the exercise of the privileges which rightfully attach to every member of a University. But it must be recollected that the Medical Graduates are nearly all men in active practice who could not in large numbers leave their daily duties to attend the meetings of the General Council at St. Andrews. There have, indeed, been times when even two or three voices raised in that Council in defence of the University, as they would have been raised had the Medical Graduates possessed a voice in its deliberations, would have been of vital importance to its interests; as when an attempt was made to exclude it from representation in the Medical Council, and when its Degrees were unrecognised by the Poor-law Board. There are no conceivable subjects which can ever range the Doctors of Medicine in a body against the Graduates in other Faculties; they have no religious or political party ends to serve; their object is, to maintain and, if possible, to enhance the reputation of the Ancient Corporation of which they are Members; and they will never be aught else than an aid and a help to those of their fellow-Graduates in other Faculties, whose object is, like theirs, the good Alma Mater.

"The Doctors of Medicine of St. Andrews, then, claim the right of becoming Members of the General Council of their University, because they are the most numerous of the Graduates and should not be excluded from a voice in its Government; they claim it because they are really Members of the University, having complied with all its regulations, pursued the course of study prescribed for them, submitted to its examinations, and had its Degree publicly conferred on them; they claim it because their interest in the welfare, their stake in the prosperity of the University is great and vital, for their social and professional status depends, in the first instance, on the character of the Degree they hold, and the reputation of the University from which it is obtained; and they claim it lastly on the ground of simple justice, that they may have equal rights and equal privileges with their fellow-Graduates."

CERTIFICATES OF DEATH.

The Liverpool Medical Institution has very wisely taken into consideration the custom of signing certificates of death without seeing the dead body. It will be recollected that recently medical men have been entrapped into signing the certificate of the death of a person who was actually living. The object of this fraud was to use the certificate as a means of obtaining money from a burial or insurance society. Now that such a case has actually come before a court of law, we may hope that medical men will not forget the possibility of being imposed upon, and will take such precautions as shall prevent them from appearing in an unenviable position before the public. It is easy to understand how the present lax custom has grown up. No suspicion has been excited, and no thought bestowed upon the matter, but it is clear that the profession has a duty towards society in this matter. We know well enough that in the majority of cases no reasonable doubt can exist in the mind of the practitioner. It is common enough for a patient to be seen in the evening who cannot be expected to last till morning; then when next day told he is dead, and asked for a certificate, it is at once filled up, although the medical man cannot affirm of his own knowledge, that the patient is actually dead. This custom, we say, is comprehensible enough, because it does not seem reasonable to ask to see the body before signing such a certificate. There are, however, other cases of much less certainty, and we have had occasion to notice a degree of laxity in public practice which can find no excuse. We have seen certificates filled up by gentlemen who could scarcely call to mind the case which was reported to have terminated in death. Now, here the door is open to fraud by the deliberate act of the medical man, and we think it would be far more proper to refuse to certify at all in such cases. The registrar of the district would then have to satisfy himself that a death had taken place by other means; or, which would be more satisfactory, an inquest would be held by the coroner, and the cause of death returned by him.

QUIETING A SICK PAUPER.

A verdict of "not guilty" need not hinder us from drawing attention to the revelations as to Workhouse Infirmaries, made in the trial for manslaughter of Henry Harman, who is described as "a weak-minded creature," and who offered no defence.

It appears that the accused was an attendant in the Infirmary of Lambeth Workhouse, his duty being to wash the patients and put them to bed, but not to administer medicines to them. That arduous task was entrusted to the nurses. A patient named, Bagley, 68 years of age, who got his living by hawking groundsel and chickweed, was admitted into the Infirmary, with an attack of paralysis, which was declared by Dr. Bullen not to be severe. One Sunday the pauper patient is declared to have been troublesome. It was the nurse's Sunday out, and the attendant, Harman, who supplied her place, gave him, in the evening, a dose of morphine, from the effects of which he died the next morning. Some witnesses spoke of violence on the part of Harman towards the patient, but the gravamen of the charge was the administration of the drug. But how did he get this powerful narcotic? The answer to this question exhibits the management of the Infirmary in a light that reflects credit on no one.

The "morphine" spoken of was a mixture, not marked poison, containing ten grains of acetate of morphia and two drams and a half of Battley, in the bottle—said by the nurse to hold "*about* 14 ounces;" according to the same witness, this was kept with as many as 25 other bottles, on a shelf in the ward. This mixture the nurse seems to have given at her own discretion, and as she superintended 80 or 90 sick and convalescent paupers, we may imagine she gave it frequently under a notion that they needed something to keep them quiet.

Dr. Bullen was not apprised of the condition of the patient after he took the drug, and would have known nothing of the circumstance but for a statement made by a fellow-inmate as he went his rounds. More surprising still, the house-surgeon who lives on the premises was not

informed of the patient's condition after he became insensible.

Mr. Justice Willes summed up in favour of the prisoner. He thought it would be hardly safe to convict this ignorant man, unless the jury thought him guilty of criminal misconduct. Such criminal misconduct must consist of the negligent administration of a thing which he knew, or ought to have known, to be of a deadly character.

So then it is again laid down that a reckless man may plead ignorance, as his excuse for giving to persons under his care a deadly poison. A medical man or a dispenser who had acted thus, would have been guilty of criminal misconduct. We do not desire to see a poor "weak-minded creature," who is able to "make no defence," hastily punished; but we do ask the guardians of the Lambeth Workhouse what right they have to intrust the care of their Infirmary to such persons? The insufficiency of the nursing arrangements could scarcely be more manifest than in the substitute thus provided for the one nurse to whom is intrusted the care of eighty or ninety sick paupers. We wonder if any one of these guardians has ever been ill himself, and if so, whether he considered the 90th part of one nurse's time sufficient attendance during that illness? Further, would he have liked to be served to a composing dose out of a bottle kept on a shelf with twenty-five others, by a "weak-minded creature," who had not heard that a tablespoonful was enough for a dose? We certainly think this case calls for further inquiry, although it is, we are well aware, but an example of what is daily occurring in the workhouse infirmaries of the kingdom. But cases like this attract public attention, and it is as well they should be thoroughly sifted.

Notes on Current Topics.

The Public Health.

LITTLE variation occurs in the return of the Registrar-General. There were registered in London and thirteen other large towns of the United Kingdom, 4848 births, and 2993 deaths. The annual rate of mortality was 24 per 1000 persons living; 23 in London and Edinburgh; 20 in Dublin; 19 in Bristol; 25 in Birmingham; 26 in Liverpool; 32 in Manchester; 23 in Salford; 24 in Sheffield and Bradford; 25 in Leeds and Newcastle-upon-Tyne; 17 in Hull, and 31 in Glasgow. The deaths registered in London amounted to 1392, which corresponds exactly with the average number.

The deaths from zymotic diseases were 311; 23 deaths from small-pox; 66 from measles; 29 from scarlatina; 12 from diphtheria; 56 from whooping-cough; 40 from fever, and 13 from diarrhœa were registered.

One hundred and sixty-seven deaths occurred from phthisis; 142 from bronchitis; 77 from pneumonia; 64 from diseases of the heart; and 150 from diseases of the brain and nervous system.

Ten infants and one adult died from suffocation; 4 persons from burns or scalds; 5 from drowning; 7 committed suicide; and 7 were killed by horses or carriages in the streets.

New Hospitals for London Paupers.

SIXTY gentlemen compose the members of the Metropolitan Districts Asylum Board. These have formed themselves into committees for the management of the different objects contemplated by the Board. Besides those who will direct the purchase of sites and the erection of the buildings, there are others for finance and general purposes, so that each gentleman of the Board is engaged in one method or other in carrying out the benevolent designs of the organization. General action has not been taken at present towards building the various asylums in consequence of obstacles which cannot be immediately removed. The Committee for Imbeciles are the first to begin. They have purchased two sites for hospitals for this class of paupers—the one at Leavensden, eighteen miles north of Charing-Cross, and the other at Caterham, fourteen miles south of that terminus. Sites have been selected at Homerton and Hampstead by the committees for fever and small-pox, but that for the southern district has not yet been purchased, the neighbourhood being so generally built over. The buildings are to be adapted in the most complete manner to the wants, well-being, and health of the patients, as far as is consistent with strict economy in the erection and management of every portion of the system. The plans of the buildings have been prepared, the committees are vigorously pursuing their work, and there is every prospect that our metropolitan parishes will be furnished with institutions of the best possible construction, which will enable them to take proper charge of their sick poor, and provide for their necessities in the best and most inexpensive manner.

Eastbourne Convalescent Hospital.

ALTHOUGH this institution was established only four years ago, it has very rapidly increased in importance and efficiency. It receives now as many as 100 convalescents, and thirty incurables. It was estimated that the expenses of the building, and all things requisite for carrying out the design would amount to £30,000, towards which sum only £16,000 have at present been raised. A concert was given for the purpose of augmenting the funds, at which about seventy amateur performers volunteered their services. Several interesting pieces were sung in excellent style, the result of which was that a considerable sum was collected towards the requirements of the hospital.

St. Thomas's Hospital and Medical School.

ON the day of our present issue, the 13th May, at half-past eleven in the morning, the foundation stone of this hospital will be laid by Her Majesty the Queen. The site is on the south bank of the river, between Westminster Bridge and Lambeth Palace. The situation seems everything that can be desired. The proposed number of beds is six hundred, besides those for sisters and nurses, and the plan of construction contemplates every accommodation for the comfort and requirements of the patients, with regard especially to space and convenience. In the most northerly part of the building, the treasurer's office, the board-room, and other places of business will be situated, and in the most southerly, the medical school; while the hospital proper will occupy the centre. At the rear will be placed the surgery, the dispensary, the out-patients' room, and the baths. The whole premises will comprise an area of not less than eight acres. It is calculated that the whole expense of the undertaking will not be less than £500,000. As it is one of the most important of our institutions, and, moreover, will be the last built, it bids fair to be the most imposing structure of the kind in

the kingdom. Nearly every member of the Royal Family is expected to be present at the ceremony.

Professor Roscoe at Apothecaries' Hall.

THE second lecture on Spectrum Analysis was delivered, according to the programme, last Saturday afternoon. The great hall was again as densely crowded as on the prior occasion, but owing to the authorities having adopted our suggestion to attempt a little more ventilation, nothing was left to be desired. During the week an entirely new arrangement for darkening the room easily and rapidly had been carried out, in a manner at once simple and effective.

The Apothecaries' Society has always shown itself ready to adopt any suggestion, and we have, therefore, great pleasure in recording the success of this experiment. The Society deserves the thanks of the Profession for bringing out this course of lectures, which, we hope, may be but the forerunner of others. The time chosen too, is evidently more favourable than the later hour, which so constantly operates in keeping away visitors at other institutions.

Professor Roscoe devoted his second lecture to the appearances produced in the spectrum by the alkalies. The lecture was illustrated by many experiments.

The Strand Guardians Again.

THE Board seem to have fancied that they could pay Dr. Rogers his salary up to the time of his suspension, and cry quits. But Dr. Rogers did not see the force of this, and indignantly refused anything less than the amount due up to the time of his dismissal. Legal advice having been taken, Dr. Rogers has been paid up to the time he and everyone else expected. His right having ever been questioned is a sufficient indication of the composition of the Strand Board.

Died at his Task.

IN Norkitten, a little town of one of the Western Prussian districts in which the starvation-typhus is ravaging, Dr. Hermann Bartsch died, attacked by the tremendous disease. This is the seventeenth physician that has fallen a victim during the present epidemic in the Western districts of Prussia.

Carbolic Acid.

SEVERAL cases of poisoning by this substance have lately been reported. In some the stomach-pump was tried with little or no effect. We have heard that some cases have been treated with success by sweet-oil and castor-oil. The oil should be administered promptly in a full dose, and it would be advisable to repeat it three or four times. We hope that greater success may attend this practice than has yet done, that of evacuating the stomach. The carbolic acid acts rapidly as a caustic on the tissues.

Vaccination Returns for Scotland.

FROM the returns of the Registrar-General of Scotland, we find that in the year 1866 no fewer than 96 per cent. of the surviving children have been vaccinated. Of the remainder, 0·56 per cent. had vaccination postponed from ill-health, the same number were insusceptible of vaccination, and the remainder had either left the district, or were not accounted for. Very few, therefore, would be exposed to the attacks of small-pox. These, however, belong to the ignorant class, and may, consequently, spread the disease should they be attacked. Still the Vaccination Act has worked much surer in Scotland than in England. Thousands have been the victims of small-pox in England, but it produced in Scotland only 131 deaths in 1865; in 1866, 300; and in 1867, only 124.

Principalship of Edinburgh University.

THE 18th of June has been fixed upon as the day for electing the successor to Sir D. Brewster. Of the several names that have been mentioned that of Sir J. Y. Simpson is the one that the medical and scientific world would like to see thus honoured. We fear, however, this is not to be. The University will not gain anything by passing over the claims of her great medical baronet.

THOSE interested in the coming International Maritime Exhibition at Havre, may be glad to hear that it is proposed to add to it a Medical Congress to come off in August. Further information will be given on application to M. de Lavergerie, 5, Crosby Hall Chambers, Bishopsgate, E.C.

THE LONDON HOSPITAL DINNER.

THIS great and important charity celebrated last week its 128th anniversary by a dinner, over which the Right Hon. W. E. Gladstone, M.P., presided, and at which about £7000 were added to the funds. It is superfluous to say that the claims of the hospital were ably pleaded by the distinguished chairman, who also mentioned that at the College of the Hospital scholarships are about to be founded to encourage the study of medicine in this unrivalled field. Nearly all the medical and surgical staff of the hospital were present at the dinner and most of the lecturers at the College. We also observed several of those who have retired from that sphere of labour, but who evidently retain a warm interest in it. The usual loyal toasts having been drunk with enthusiasm, the right hon. gentleman proceeded to the toast of the evening. He said his claim to take the chair on that occasion had arisen from his connection with one of the several subsidiary establishments which had been called into existence by the London Hospital—he alluded to the recently-established convalescent hospitals, which every enlightened man must perceive to be, in the case of this great metropolis, an essential portion of any rational scheme for the health of its inhabitants. It rarely happened that persons engaged like himself in a sphere widely different from that in which those connected with this hospital were occupied, undertook the task of commending to public notice institutions of this character; but in his case he could assure them it was from want of opportunity and not from want of will. It might be invidious to make comparisons, yet he might say that in certain respects, amid all the sister institutions, the London Hospital could present to the notice of the public of the metropolis a paramount and an unrivalled claim. The first ground of such a claim arose from what seemed to be a law governing the construction and organization of the vast and almost immeasurable city in which they were living. What one would desire would be that the growth of London should harmonize with the expansion of the various orders and ranks of which a Christian community was composed, so that those who were in the higher stations of life should be at hand ready to administer to the wants of their poorer brethren. But, on the contrary, the law by which the growth of London appeared to be regulated was that its wealth and grandeur should concentrate more and more towards the west, while the labouring community should tend towards the rising sun. The social consequences of this habitual system were very remarkable. It removed from the scene in which the wealthy and the great resided, and whose dwellings ran through continuous streets and squares inhabited by the upper and middle classes, all physical evidence of want and privation, and exhibiting to them no signs of the never-ending struggles of their fellow-men against the evils and miseries of the world. He knew not of any mode by which the general growth of London could be suppressed, and the tendency of this separation of the rich and the poor be arrested; but as a practical measure he thought the best thing that could be done was in every way to encour-

age by individual and combined efforts these benevolent institutions, which might happily bring about a restoration of that link of Christian and human charity which alone could bind together the extremities of society. The right hon. gentleman then pointed out the peculiar nature of the diseases which the London Hospital from its locality had chiefly to relieve, and which he described to be in the great majority of cases accidents. The total number of in and out-patients received during 1867 was 38,776; of these nearly 16,000 were cases of accidents, so that beyond all dispute the London Hospital was an hospital for accidents, and he would also call it a free hospital, for out of the 38,776 patients relieved during the year, 22,308 were free patients—that is, they did not require any recommendation for admission to the hospital.

Having thus pleaded for the hospital, Mr. Gladstone turned to the college, which really stands in need of assistance to enable it to establish the scholarships proposed. He pointed out that in deciding on founding such scholarships, the authorities were only legitimately completing the scheme for rendering the hospital useful to the whole community. The Council, he said, had selected for the designation of the scholarships the name of the late chairman of the house committee as a just mark of gratitude for his great and long-continued services to the hospital; so that they are called the Buxton Scholarships—a name which had been for several generations associated, both in the city of London and over the wide world, with every civilized, Christian, and philanthropic purpose. A sum of £2000 is needed to establish these scholarships. Less than £800 has at present been subscribed, but no doubt further assistance will soon be forthcoming, and hospital and college may both look for a continued period of prosperity.

Proceedings of Societies.

HARVEIAN SOCIETY OF LONDON.

APRIL 2, 1868.

PRACTICAL REMARKS ON THE TREATMENT OF SOME OF THE DISEASES OF THE GENITO-URINARY ORGANS.

By W. F. TEEVAN, Esq., B.A., F.R.C.S., &c.

MR. TEEVAN commenced by stating that he intended to divide the subject of the evening's discourse into four parts:—1. Spermatorrhœa; 2. Stricture of the urethra; 3. Irritable bladder; 4. Stone in the bladder. He however would on this occasion be only able to notice the first two subjects, as the evening had already been considerably shortened by some communications.

The author related the various opinions regarding spermatorrhœa, showing that whilst it was recognised as a complaint *per se* in France, its existence in this country was almost ignored. According to M. Mercier, spermatorrhœa was very common, and resulted generally from, and was a symptom of, indigestion. Mr. Teevan went fully into the causation and pathology of the complaint, as related to him personally by M. Mercier, and narrated two well-marked cases which had come under his own notice, and in which the existence of true spermatorrhœa had been clearly proved by microscopical examination of the urine, which showed that spermatozoa were passed, unconsciously to the patient, in the day and night urine. There were four causes for spermatorrhœa:—1. Indigestion; 2. Excess in venery; 3. Local irritation; 4. Masturbation. The complaint was common in cases of disease of the brain and spinal cord.

The treatment of the complaint varied according to its cause, and also whether it was the primary functional disorder, or merely secondary. When it resulted from indigestion, a cure would be obtained by removing the dyspepsia, and by local treatment—electricity and mild injections of nitrate of silver (gr. v. to gr. x. to the oz.). If it was caused by excess in coitu, it might be removed by large doses of tinct. ferri. sug. (℥j. to ℥iss.), given three times a day, and by cold bathing: this latter remedy was, however, very powerful, either for good or for evil, and ought not to be used unless there was well established reaction. Horse exercise, carriage exercise, and walking, were all bad, and ought to be avoided, as the blood was determined to the pelvic organs. Gymnastics and rowing, or the use of dumb-bells, were the best kinds of exercise.

Mr. Teevan then proceeded to his second division, and explained the causation and pathology of stricture of the urethra, and stated that no attention whatever had been paid to that most important fact—the detection of stricture in its earliest stage, and thus entirely obviating any operative interference. He showed how strictures could be recognised by the use of the "bougie à boule," years before the generality of surgeons would find out the existence of the complaint.

There were only two philosophical and surgical ways of treating stricture of the urethra—either by gradual dilatation or by subcutaneous division. Most strictures are best treated by the use of the French "bougie olivaire." The author said he was the first to introduce these instruments into English hospital practice, and no one who had ever used them would ever return to the English ones. The instrument pictured in the *Lancet* of January, 18th, and called "bougie à boule" by Sir Henry Thompson, was not such, but was the "bougie olivaire." The former was for the detection of stricture, the latter for its treatment.

Dr. DRYSDALE complimented the author on his paper, and said he was extremely glad to find that Mr. Teevan had taken up the subject of spermatorrhœa, a complaint entirely ignored through the indifference of the profession, and trusted that it would be rescued from the hands of ignorant quacks. He said he thought it would perhaps be found that spermatorrhœa, instead of being a symptom of indigestion, was a cause. He should be glad to know what objections Mr. Teevan had to the forcible rupture of stricture.

Dr. COCK would be glad to know what was the dose of the iron which Mr. Teevan gave, and he should also like to hear what objections there were to the use of dilators.

Mr. COULSON confirmed Mr. Teevan's praises of the "bougie à boule" and the "bougie olivaire," and said he was now often able to detect a stricture as a cause of gleet, whereas formerly he had often failed to cure that complaint—not being able to recognise its cause. He, however, differed from Mr. Teevan in preferring the use of the metal instruments in those cases of stricture which were old and cartilaginous.

Dr. CAMPS said he did not think that masturbation was nearly so common as supposed, and believed that spermatorrhœa was a rare complaint, and that the peculiar morbid dreams to which Mr. Teevan alluded existed in other complaints.

A Member said he had been very much interested, and hoped that Mr. Teevan would at a future meeting of the society favour them with his observations on the two subjects which he had not been able to touch on.

Dr. GELSTON stated that he had become acquainted with the "bougie à boule" and the "bougie olivaire," through Mr. Teevan, and he would never again use the English instruments.

Mr. TEEVAN, in reply, stated that small doses of iron were useless in spermatorrhœa: the sesquichloride must be given in doses of ℥j. to ℥iss., and it would be found that it rarely caused any inconvenience. Forcible dilatation of the urethra was of but little use, inasmuch as it had to be preceded and followed by gradual dilatation. Nothing at present known could excel the treatment of stricture by means of the "bougie olivaire," for to it no stricture was impassable. It caused no pain or inconvenience to the patients, who might be cured without losing a drop of blood or a single hour's work.

Mr. Teevan then demonstrated, by means of the endoscope illuminated with the lime-light, the interiors of several living human bladders.

AT THE MEETING OF 16TH APRIL,

MR. ERASMUS WILSON read a paper on Morphœa or Vitiligo, giving the statistics of twenty-five cases which had occurred in his own practice, together with the pathology, the etiology, the prognosis, and the treatment of the disease. He prefaced his narrative by attributing disease in general to a lowered state of vital power, the latter constituting a *causa morbi*. Such *causa morbi* being engendered, it might give rise in twenty individuals to as many different diseases; or, in the same individual, by attacking different organs, to a series of diseases; for example, bronchitis, diarrhœa, rheumatism, or eczema. When these affections succeed each other separately, that which follows obtains the credit, popularly, of having been the cure of its predecessor; and in the same way, if the first disease should be an external affection, and the second a disorder of an internal organ, the disease is popularly supposed to be *driven in*. The skin, like the body in general, is made up of a number of different structures, and these structures may be affected by a *causa morbi*, separately or collectively. Morphœa attacks the whole of the tissues of the skin, beginning by an altered state of the nerves; the capillaries then become obliterated; there is loss of sensation and circulation; the capillary structure is effaced, the epidermis changed in char-

acter ; secretion is arrested, and the hairs fall out or are altered in colour to white. The pathological process in operation in the production of these changes is a hyperplasia of the white fibrous tissue, a substitution of a lowly organised tissue for a higher tissue, in a word, *fibrous degeneration* of the skin.

The general characters of morphœa are—a spot in the skin, which is white, more or less insensible, smooth, hairless, circumscribed, and permanent ; and it presents itself to our observation, sometimes in the form of a thickening and condensation of the skin, and sometimes as a withering, or atrophy. Hence its distinction into morphœa tuberosa, and morphœa atrophica ; the former is commonly remarkable for a whiteness which is comparable to ivory, hence, also, the term morphœa alba ; while occasionally, and more commonly in morphœa atrophica, there is an increment of pigment in the rote mucosum, morphœa nigra. A portrait of a little boy, the half of whose face was affected by morphœa, was exhibited to the Society, in order to illustrate the various forms of the disease : on the cheek was seen morphœa tuberosa and alba, and on the forehead morphœa atrophica and nigra.

The disease begins as a lilac-tinted erythema ; in the centre of which the white spot, the *leuke* of the ancients, appears; the white spot is sharply defined, and is encircled by a suffused halo of lilac-redness, often of the tenderest hue. Sometimes a sensation of heat, sometimes a tingling or itching, accompanies the pathological change, at other times it is discovered only by chance; and however much deformity it may occasion, it never gives rise to pain.

Of the 25 cases observed by Mr. Erasmus Wilson, 5 only were male ; 20 occurred between the ages of 10 and 40 ; the ages between 20 and 30 being those in which the greatest number were found ; this estimate of age corresponding in the female with the most active period of uterine function ; 15 out of the 20 female cases being attributable to sexual causes in which the uterus was concerned—namely, 9 pregnancy, and 6 menstruation.

Like most affections of neurotic origin, morphœa is very commonly unilateral, 11 of the 25 cases presenting this character; its most frequent locality is the trunk of the body, more especially the clavicular and sub-mammary region.

It is always chronic in duration, one case having been under observation for 31 years, one for 15 years, one for 12 years, and eleven for 5 years. And in a few instances it evinces a proneness to recovery, and spontaneous cure, occasionally getting well on one spot, while another may be in progress of formation.

While, therefore, this remarkable affection must be looked upon as being pathologically a retrograde, metamorphosis of the tissues of the derma originating in neuro-paresis, it must be regarded pathologically as a debility and aberration of nutritive power, in a word, a nutritive debility. Hence, the treatment should consist of those means which are known to improve nutrition and sanguification ; for example, a rational hygiene, cod-liver oil, iron, and arsenic, together with mild, discretient and stimulant, local remedies, and an encouragement is held out of the probable success of these remedies by the fact of the occasional occurrence of spontaneous cure.

MEDICAL SOCIETY OF LONDON.

27TH APRIL, 1868.

DR. RICHARDSON, F.R.S., President, in the Chair.

THE new law declaring that extra-urban Fellows shall be admitted on payment of entrance fee only (without annual subscription), was read from the chair.

Mr. FRANCIS MASON exhibited for Messrs. Weiss, a new speculum for facilitating the performance of operations upon the uterus and vagina.

Mr. WEEDEN COOKE exhibited a drawing, and narrated a case of large ranula.

Mr. HENRY LEE read a paper on a case of syphilis communicated to a wet nurse, and on vaccino-syphilitic inoculation. He wished to direct the attention of the Society to those secretions which were as distinguished from those which were not the means of conveying the disease. The secretions from secondary symptoms, and especially from secondary symptoms as they appeared on mucous surfaces, would convey the disease ; and Mr. Lee cited at length a case in which it had been so communicated from a child to a healthy wet nurse. But he maintained, on the other hand, that no proof had hitherto been afforded that the milk from the breast, the pure vaccine lymph or even the pus from the "pustule of inoculation," ever had been the means of communicating secondary syphilis. It was well-known that the syphilitic poison after it passed through the inguinal glands became altered in some way, so that it no longer affected the lymphatic glands second in order or nearer the centre of the circulation. He believed that circulating fluid, after undergoing an elaboration in the mammary gland in the vaccine vesicle, or in the pustule produced by inoculating the secretion of a suppurating sore, underwent an analogous period of action, that these several secretions were no longer capable of giving constitutional syphilis, although the blood whence they were derived might do so. It was necessary he (Mr. Lee) said to draw an accurate distinction between the suppurating sore and the indurated sore. The secretion of the latter would of course, if inoculated in a virgin constitution, produce an indurated sore, which would be followed by secondary symptoms ; but he believed that it had never yet been proved that the inoculation of the pus, which appears four or five days after contact in the specific pustule, would produce the same effect. Mr. Lee invited the co-operation of the Society in the investigation of the laws of the transmission of secondary syphilis—the three points which he had stated, although at first sight, having no very evident connexion, yet pointed to a general law, and societies as well as individuals, he thought, might, by accumulating facts, follow out the true inductive reasoning, whether after a longer generalisation we should be able to establish the law that no secretion after it had been elaborated, in a gland, from the blood could convey the poison contained in that blood. He (Mr. Lee) did not know, but the facts ascertained, as far as they went, appeared to him to point to the idea that the natural secretions elaborated in the different glands of the body cannot communicate syphilis, and that the products of morbid poisons elaborated in the body (other than that of true syphilis) cannot communicate that disease. The author dwelt at some length upon the subject of vaccine syphilitic inoculation, and considered that when syphilis had thus been communicated, as it doubtless had been on the Continent, it was through the blood or some other fluid having been inoculated in addition to the pure vaccine lymph. He had not seen an instance of syphilis having been communicated by vaccination in England, and this he attributed to the abundant supply of vaccine lymph and to the care which English medical men bestowed upon the operation.

Dr. DRYSDALE said that it was an interesting fact that Mr. H. Lee, with his large opportunities, had not seen a single case of communication of syphilis by vaccination. He narrated a case which seemed to him an undoubted example of such communication. (This case has been reported in the *British Medical Journal* for April 25, 1868.) He said it was indeed fortunate that inoculation of so formidable a disease as syphilis to infants took place so rarely in this country. There was, however, no doubt concerning the epidemics of Rivalta, and more recently of Morbihan, in France, as related by M. Depaul. All who are familiar with the way in which syphilis is contracted, must see that vaccination from an infected child is likely to spread the disease. He had seen the disease propagated by the most trifling modes of communication. With regard to Mr. Lee's remark about the infection not being derived directly from the seminal fluid, he could not coincide with this, since he had, in some cases, seen the child of an infected man syphilitic, and its mother escape, and he had also seen cases where the husband had long been free from disease, and the fœtus and mother became infected, although he agreed with Cullerier and Simonet, of Paris, that such cases were exceptional. His friend, Mr. R. W. Dunn, had met with two cases of vaccino-syphilitic inoculation.

Dr. BALLARD repudiated the inference drawn by the last speaker, that the case which he had narrated was of true vaccine syphilis. When syphilitic virus is inoculated with vaccine, there is—First, a vaccine vesicle ; second, a chancre. In his case there was no primary sore, but a manifestation of constitutional syphilis ; anything which will disturb the *status quo* of the constitution, may occasion the manifestation of hitherto latent syphilis. In the case quoted, the disturbing cause was the vaccine fever. The child, no doubt, was syphilitic, either hereditary or casually, prior to vaccination ; had it been otherwise, a primary lesion would have occurred at the seat of the punctures. He understood Mr. Lee to say that while syphilis could not be imparted by inoculation of pus derived from the product of syphilisation, it could be imparted by the blood thereof. This, if true, confirmed the view held by some, of the danger of imparting syphilis when blood is drawn in taking lymph from a syphilitic vaccinifer. He believed that all had

abandoned the view that the virus of syphilis was contained in the normal contents of a vaccine vesicle. In proof of this M. Sebastian Beziers vaccinated from a syphilitic child without drawing blood. By accident blood was drawn and mixed with the lymph used in making the last puncture. In this spot only a primary sore appeared, the others presenting true vaccine vesicles.

Mr. FRANCIS MASON narrated a case of a woman, undoubtedly syphilitic, nursing a perfectly healthy child.

Mr. WEBB inquired if it were possible to take vaccine virus, which can be said, with absolute certainty, to contain no blood element.

Dr. ROGERS said that if the knowledge can be disseminated, that vaccination from even syphilitic cases can be performed without the propagation of syphilis, a most valuable effect will be produced. He was certain that virus could be obtained without the admixture with blood.

Mr. MARSON could only present negative evidence. Out of 60,000 vaccinations observed by himself, there was not a single case of syphilis so communicated. He considered that the French experiments had been carelessly performed.

Mr. HUNT had seen 1000 cases of infantile syphilis, not one of which could be traced to communication through vaccination.

Dr. SANSOM mentioned a case which he concluded to be one of vaccino-syphilitic inoculation, because—1st. The syphilitic manifestations, which were undoubted, occurred with such a direct relation in point of time to the performance of vaccination, as to give the greatest probability of the causative influence of the latter ; and 2nd. His ultimate knowledge of the history of the parents allowed him to state absolutely that they were not syphilitic. He asked if any could believe the blood corpuscle to be the contaminating medium, for if not it would be impossible to tell from the inspection of virus whether it might be noxious—the question of admixture with blood became therefore of no great practical moment.

Dr. OPPERT said that ten years ago a physician attached to an hospital at Moscow, asserted that syphilis might be *cured* by vaccination ; in slight modified eruptions which resisted treatment, vaccination brought out the latent syphilis to the surface—these views supported those of Dr. Ballard as regards the disturbance of the system by vaccination. In Dr. Drysdale's case there was a missing link, it was not certain that the lancet with which the child had been vaccinated was pure, nor was the child under medical observation during the period of vaccinia. In Italy, too many subjects were vaccinated from one vaccinifer. Mr. Marson's remarks on continental carelessness were too sweeping. In Prussia great care was taken, but in Russia and France lady vaccinators (the midwives) existed.

Mr. WOOLF, in doubting the efficiency of the records of cases of vaccino-syphilitic inoculation, narrated a case in which he had observed secondary symptoms, though the possibility of syphilis in the case was stoutly denied ; the most searching investigation is necessary, in every case we must be insolently critical.

Dr. CHOLMELEY also considered the cases of so called vaccino-syphilis very imperfect ; the only direct evidence could be a chancre at the seat of the vaccino-puncture.

Mr. DE MERIC said that in his mind there was not the slightest doubt that syphilis *could* be transmitted by vaccination. It is dangerous to reject the records of facts coming from France, Italy, and Germany ; this country has been fortunately free, though even here isolated cases have occurred. Eruptions sometimes after vaccination afford no proof. To carry conviction the vaccine vesicle must be seen to take a chancrous character. The negative testimony of vaccinators of great experience is entitled to every respect, but the very multiplicity of their operations weakens that testimony, they must lose sight of many of their patients. Mr. De Meric believed the lymph of the vaccine vesicle of a syphilitic child could convey the disease, he thought also that pus was capable of infecting ; as shown by Erbsot, a drop of lymph from a secondary papula was sufficient to impart syphilis. In fact, pathological secretions should be looked on with more suspicion than blood, which is at all events a pysiological product.

After some observations by Mr. Weeden Cooke, Mr. Marshall, and Mr. Ebsworth, whose testimony tended to negative the possibility of vaccino-syphilitic inoculation,

Dr. MARSTON said he thought such cases must be excessively rare, though he believed the contagion of syphilis might be conveyed through vaccination (facts which he considered proved by the cases at Rivalta and elsewhere) he did not think cases here related conclusive. The poisons of vaccine and syphilis were definite things, and produced definite series of effects occurring in regular succession. Vaccine and syphilis do not give rise to a hybrid disorder. Vaccine disease commences at the second day from the puncture, and runs its well-known course ; the earliest effect of syphilis is from ten days to six weeks after inoculation. The fluid in the Jennerian vesicle according to his (Dr. M.'s) observations is homogeneous up to the 8th day, and not cellular till the phenomena of inflammation are superadded ; how far it was true that the secretions, whether physiological or pathological, could convey syphilis, we are not yet in a position to affirm.

The PRESIDENT said it was impossible that the discussion of this evening would be fruitless, the opinion of the great majority of authorities, and the mass of direct evidence, tended to the conclusion that vaccination does not convey syphilis, and the minority have not sufficiently eliminated, *per contra*, facts.

Mr. HENRY LEE said, that notwithstanding the observations of the President, he was perfectly assured that such a thing as vaccino-syphilis does exist, physiological products (exudation) are more likely to be a contaminating media than pathological products (elaborations).

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

BELFAST BRANCH.

THE stated quarterly committee meeting of this local branch of the above society was held on Wednesday, the 6th instant, Dr. T. H. PURDON, the permanent president, occupying the chair.

Amongst the other members present were—Dr. Patterson, Dr. James Moore, Dr. Keown, R.N., Sydenham; Dr. Drennan, Dr. Whitaker, and Dr. R. Stewart, the honorary secretary.

Next month being the annual meeting of the society in Dublin, and when grants are made to proper objects for its assistance, several cases came before the local committee here to-day for consideration; and each having been carefully examined into, and found correct, all were approved of and signed by the president, for transmission to the general secretaries in the metropolis. The subject of taking more energetic steps to increase the number of subscribers, both in town and the country districts, was largely discussed, it being considered a matter of surprise that so few, comparatively, in Belfast, should give their aid, and still fewer outside its boundaries. The fact, too, of Antrim and Down, the sphere of action of this branch of the society, mustering so many on their roll of the "great and high-born," a larger proportion of whom might reasonably be expected to "shed the light of their countenance" upon a society so beneficent in its objects; yet, with but two or three bright exceptions, no substantial proof is given by that exalted class of any sympathy for the prosperity of so valuable and important a society. In regard to the town collection of subscriptions, Dr. Patterson, Dr. James Moore, and Dr. Browne, R.N., treasurer, were requested to undertake that duty at their earliest convenience, and report to next meeting. The country members of the committee were earnestly called upon to use their best exertions for contributions in their respective localities, and report progress also ; Dr. James Moore being at the same time appointed a deputation, as he had kindly consented to be on former occasions, to visit some of the more remote places of the district, on behalf of this branch.

The following subscriptions were now reported to have been received :—Dr. C. D. Purdon, £3 ; Dr. Drennan, £1, 1s. ; Dr. Ross, Ballymena, 10s. ; Miss Patrick, Ballymena, per Dr. Ross, 10s. ; Surgeon John Smyth, Belfast, 10s. 6d. ; Dr. Keown, R.N., Sydenham, 10s. 6d. ; Dr. Warwick, Belfast, 5s.; Dr. Filson, Potaferry, £1 ; Dr. Scott, Rifle Brigade, £1, per Dr. Filson ; Dr. Jamison, Newtownards, £1.

A letter having been read from the general secretaries in Dublin, requesting a report of the proceedings of this branch for the past year to be embraced in the annual report of the parent society, and some further business having been transacted, the marked thanks of the committee were given to the president in the chair to-day, for his continued lively interest in furtherance of this branch's operations and munificent pecuniary aid, and the meeting separated.

Correspondence.

INQUEST ON A CASE OF POISONING BY OXALIC ACID.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I send you herewith a report of an inquest on a case of poisoning by oxalic acid, which is remarkable in many respects:—

1st. The patient took three-fourths of an ounce avoirdupois.

2nd. She died in ten minutes afterwards, or shortly after.

3rd. She *tested* the contents of her own stomach.

4th. She vomited *almost all* the poisonous material, as the *coats* of the stomach retained by *absorption* only two grains of the oxalic acid.

5th. There was *nothing to be found* in the contents of the stomach, which were merely *effused* blood.

The stomach was *intensely red* and *inflamed* in that short period.

I say that *she tested* the contents of her stomach by having vomited into *a bucket of water*, having a great quantity of lime in its solution.

"The vomited matter was like milk" when seen on the floor, "and when she vomited into the bucket" *it appeared to turn the water into milk.*

This did not come out in evidence, as the girl vomited into the pail in which they were in the habit of washing the glasses and cups used in the bar, and of course the landlord did not want to damage his business by giving such evidence.

The floor was *wooden*, not of stone; so that, as the oxalic acid was dissolved in *hot water highly charged with lime*, and it acted as an instantaneous emetic, it came up almost as it was swallowed, *a milky-looking fluid*, still capable of precipitating a large quanity of lime.—I remain, &c.,

WILLIAM BIRD HERAPATH.

From the account sent by Dr. Herapath, published in the *Bristol Daily Post*, we extract the following as the professional evidence, omitting those portions which are so clearly described in our correspondent's letter.

It having been proved that deceased had sent for and obtained the poison, had taken it, had shortly died, &c., &c.,

Dr. HERAPATH, F.R.S., deposed as follows:—I was called in to the deceased a little after seven o'clock. I arrived about half-past seven o'clock, and she was then dead, and had been dead some fifteen minutes. I was told that she had been vomiting, and vomited matter was shown me. The vomit was a very remarkable one—mucus, with curdled, dark stuff—which led me to suspect altered blood. There did not appear to be any particles of food in the vomit. I have since examined the vomit, and I have found oxalic acid in small quantities in it. I have obtained crystals from the vomit, so small, however, that it required the microscope to discover them. Yesterday I made a post-mortem examination. The body was well nourished and healthy. The deceased was not pregnant. All the viscera were healthy. I have examined the stomach. It presented an intensely blood-red appearance, and the fluid contained in it was blackened, curdled, altered blood. There were some very small white patches existing on the stomach, and the vessels were braced out and darkened as if by hardened blood. The blood was so altered in character that it was in fact insoluble. If the oxalic acid had been taken in water strongly impregnated with lime salts the white appearance presented by the vomit would be accounted for, as the lime would be precipitated as oxalate of lime. I have never seen an instance of poisoning by oxalic acid before, but I have experimented upon animals. It is a very rapid case of poisoning—one of the most rapid on record. I have no doubt that she was poisoned by oxalic acid. The deep colour of the stomach was caused by the intense irritation, and next by the exudation of blood. The precipitation, darkening, and curdling of the blood are the first symptoms produced by this poison. One-sixth of the quantity taken in this case is recorded as having killed a person, and the shortest time on record is eight minutes. The time in this case, I should think, was about 15 or 20 minutes.

Mr. PESTER—No, I don't think it was so long as that; not more than ten minutes. Mr Pester also stated that the water drawn from his well, and used in his house, contained lime in large quantities.

Dr. HERAPATH—I have not analysed the contents of the stomach. She died unquestionably from collapse, which would be produced by oxalic acid. The acid dissolves slowly in cold water, and hot water would have caused it to dissolve quicker.

EMMA THOMAS, re-called—Miss Salmon asked me to go for the acid just before seven o'clock. I think it was about half-past six o'clock. I use it nearly every morning myself. There was a small quantity of acid in the house.

ANDREAS GROVE, a Dane, living at Cardiff—I am married to deceased's sister. I last saw her about the beginning of November. We were not on very good terms with her. She had been an inmate of my house off and on since 1858. On one occasion she threatened to stab my wife, and took up the knife to do it. She had received no provocation. She was very excitable, and uncommonly passionate. I upbraided her, and she threatened to go and drown herself. I brought her back again, and maintained her for some time. Her temper was very bad, and my firm belief is that the girl has been insane for years. In September I took her out for a walk on the Clifton-downs, and she stood near the edge and remarked it would be a fine opportunity for her to jump over the rocks. She has applied to me for help, but not lately. She has said that she would not trouble me long.

Mr. PESTER said Miss Salmon had behaved herself very properly while she had been with him.

Dr. HERAPATH remarked that the deceased, in his opinion, suffered from impulsive insanity.

Mr. WASBROUGH then summed up, directing the attention of the jury to the various points in the evidence, and he pointed out to them that the questions for their consideration were, whether the deceased took the oxalic acid, and whether, at the time she committed the act of self-destruction, she was in a sane state of mind and was responsible for her acts.

The jury returned a verdict of "Temporary Insanity."

INHALATION IN DISEASES OF THE LUNGS AND AIR-PASSAGES.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—It must be admitted that the several affections of the respiratory organs constitute the largest class of maladies in this country, and that phthisis and bronchitis contribute the greatest proportion to the records of mortality. The latter diseases may indeed be emphatically called the scourges of this climate. The tables of Young, Woolcombe, Clark, Williams, and the more recent and admirable compilations of the Registrar-General, demonstrate that not less than one-fifth part of the adult population, and a still larger proportion of children, die from pulmonary consumption. When to this we add the deaths from bronchitis, asthma, and other forms of disease having their seat in the air-passages and lungs, the sacrifice of life caused by these ailments may be fairly estimated to amount to nearly one-third of the gross mortality.

The ingenuity of many minds has been successfully exercised in designing, and has resulted in the production of a variety of effective instruments, by which medicines can be administered, through the medium of the respiration, in the form of gas or vapour, or in solution reduced to a minute state of subdivision by mechanical force, and presented as a fine spray. England, France, and Germany, are equally represented in this field of scientific enterprise, while the pharmacopœia and laboratory are being daily rendered more fruitful of remedial agents.

The points to which I would chiefly direct attention for the consideration of those who desire to investigate the subject, are—

1st. That medicines when inhaled act locally on the air-passages and cells, and it is only when so administered that any direct action can be produced by them analogous to that which is effected by their application to other portions of the body.

2nd. That inhaled medicines do act constitutionally as well as locally, and they do this more promptly, more powerfully, and with less disturbance of the other organic functions than when administered through the medium of the stomach. A partial exception, under this head, may be made in favour of the plan of hypodermic injection in as far as regards rapidity and intensity of action, but the functional disturbance arising from this latter mode is frequently very severe.

3rd. That the treatment by inhalation is based upon scientific principles, and its safety and soundness in practice is susceptible of demonstration from facts recorded by the highest authorities in our profession, while its elegance, ease of administration, and freedom from all that is objectionable in the taste, odour, and other qualities which make medicines, when

swallowed, very repugnant to most patients, are unquestionable.

4th. That besides being a most reliable curative means when employed alone, it is also a most valuable adjunct to stomachic medication in cases of disturbed organic function which demand treatment through the medium of the digestive organs.

5th. That, as a system of practice, the method of administering medicines by inhalation is as complicated, and requires as much judgment and experience for its employment, as the administration of medicines by the stomach. The selection of the remedies to be used must be based on the fundamental principles of pharmacology, and the practitioner must be guided in the construction of his formulæ, by the experience acquired by him of their action under various circumstances in different individuals, and for the several diseases.

6th. That it is a system of treatment worthy of the fullest investigation by physicians, as curators of the public health, for their judgment in the matter becomes a question in which the public may truly be said to have the interest of life itself, and by an impartial test of its merits only can it be saved from becoming prejudiced in the estimation of the world.

Full and free discussion on these various points can only be productive of good, and I have been influenced in thus writing with a desire to evoke such discussion through the medium of your valuable journal.—I am, Sir, obediently yours

ROBERT GEORGE WATTS, M.D.

THE APPLICATION OF THE SPINAL ICE-BAG IN THE TREATMENT OF DELIRIUM TREMENS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In reference to a statement made by Dr. Hewitt during the debate upon Dr. Chapman's spinal ice-bag, at the last meeting of the Surgical Society, to the effect that he was the first physician to apply it in the treatment of delirium tremens, I wish to inform you that last November I had recourse to it for the purpose of checking violent and persistent vomiting in a case of extreme nervous perturbation, *bordering closely* upon delirium tremens, the result of a prolonged debauch. Before employing the bag I tried the following remedies without in the least degree influencing the vomiting—viz., hydrocyanic acid in solution of magnesia, mist. creosoti., morphia, chloroform, chlorodyne; brandy and ice internally; dry-cupping sinapisms, and the application of a liniment consisting of equal parts of lin. aconiti and lin. chloroformi, over the region of the stomach and liver. After the bag had been a very short time applied, the retching ceased, and returned only once during his illness, which lasted three or four days.—I am, Sir, yours very truly,

N. J. BUTLER, L.C.P.I., &c.

UPHOLDING THE CAUSE OF POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Give me space to express twofold gratitude—firstly, to Dr. H. W. Williams, who has spoken so boldly in your issue of April 22; secondly, to you as the Editor of THE MEDICAL PRESS AND CIRCULAR, for the articles you have during the last year devoted to our cause, not the least important of which is the one that has called for the letter of Dr. Williams. Sir, you deserve double thanks, because when others have grown lukewarm or faithless in our cause, you have taken it up with greater earnestness and greater power than ever. It is no secret, sir, that the last year or two has witnessed astounding changes in professional journalism—most of all in THE MEDICAL PRESS AND CIRCULAR. You seem to have got rid of all namby-pambyism, and to have adopted the most manly, outspoken, and independent tone. The Poor-law Medical Officers will henceforth know where to look. This last point you have taken up (the medical inspectors and what is expected of them), none of your contemporaries have dared to touch. I know they have been urged to mention it, but dare not or will not. The power of cliquism with some, the hope of windfalls with others, keeps them from what they consider dangerous ground. Meanwhile, Poor-law doctors lose faith in the sincerity of their *quondam* friends, or their hopes for the future grow feebler day by day. You, sir, have caused an electric shock to run through the whole body, and with such a helping hand as you have lately extended to us, I for one take heart again. Long may THE MEDICAL PRESS AND CIRCULAR retain the confidence it has so justly won. On every occasion I shall point out to non-subscribers the honesty of its advocacy of the rights of the profession, and my conviction that the editorial department in the last few months has been improved in a degree no one could have anticipated.—I am, &c.,

A POOR-LAW DOCTOR.

MERCURIALISTS AND ANTI-MERCURIALISTS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Anything bearing on the above subject must be interesting to your readers in general. Therefore, allow me to record the following case which came lately under my observation:—

A farmer, aged 43, sent for me on 6th of February last, and I found him suffering from acute pleuritis. As he appeared to be possessed of a sound constitution, and was not run down by the disease (though the latter was of a very sthenic type), I resolved to give mercury a fair trial, and ordered minute doses of calomel, with directions to stop them the moment the mouth became affected. On the second day very slight salivation ensued, and immediately the urgent symptoms of the disease abated, and in a very few days all signs of the original pleuritis had disappeared. But scarce a week of convalescence had elapsed, when another evil stared us in the face: erysipelas set in; both arms and right leg were attacked. A large diffuse abscess formed below the knee, another above the elbow, and for many weeks I had little hope of my patient's recovery. However, under tonic treatment he has now made a tolerable recovery. I think this case interesting, because, in the first place, it tends to prove that mercury has the power of arresting inflammation; and, secondly, it shows that the very process by which it accomplished this, viz.—by its solvent action on the blood, is in many cases highly prejudicial.

If both mercurialists and anti-mercurialists would carefully weigh the facts of a case like this, I think that neither party would be so dogmatic in their opinions as they seem to be.—I remain, sir, your obedient servant,

Bantry, May 1, 1868. A. B., M.D., M.Ch.

Medical News.

ROYAL INSTITUTION OF GREAT BRITAIN.—The following gentlemen were unanimously elected as officers for the ensuing year, at the late annual meeting:—

PRESIDENT—Sir Henry Holland, Bart., M.D., D.C.L., F.R.S.
TREASURER—William Spottiswoode, Esq., M.A., F.R.S.
SECRETARY—Henry Bence Jones, M.A., M.D., F.R.S.
MANAGERS—Henry Wollaston Blake, Esq., M.A., F.R.S.; Charles Brooke, Esq., M.A., F.R.S.; Adm. Sir Henry John Codrington, K.C.B.; Captain Douglas Galton, C.B., F.R.S.; John Peter Gassiot, Esq., F.R.S.; William Robert Grove, Esq., M.A., Q.C., F.R.S.; Cæsar H. Hawkins, Esq., F.R.S.; Sir John Lubbock, Bart., F.R.S. Pres. Entom. Soc.; Sir Roderick I. Murchison, Bart., K.C.B., D.C.L., F.R.S.; William Pole, Esq., M.A., F.R.S.; William Frederick Pollock, Esq., M.A.; Robert P. Roupell, Esq., M.A., Q.C.; Lieut.-Gen. Edward Sabine, R.A., D.C.L., Pres. R. S.; Sir Charles Wheatstone, D.C.L., F.R.S.; Colonel Philip James Yorke, F.R.S.
VISITORS—Andrew Whyte Barclay, M.D.; Charles Beevor, Esq., F.R.C.S.; John Ashton Bostock, Esq.; John Charles Burgoyne, Esq.; Rev. Charles Fynes Clinton, M.A., F.R.G.S.; Alfred Davis, Esq.; William Dell, Esq.; Rev. G. Godwin Pownall Glossop, A.M.; Alfred Gutteres Henriques, Esq.; Edward Henry Moscrop, Esq.; William Newmarch, Esq., F.R.S.; Arthur Giles Puller, Esq., M.A., F.S.A.; Samuel Scott, Esq.; Edward Owen Tudor, Esq., F.S.A.; Robert Ballard Woodd, Esq., F.S.A., F.R.B.S.

Drs. Tyndall and Frankland were re-elected Professors of Natural Philosophy and of Chemistry.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were admitted Members of the College by Diploma on the 5th and 6th inst.:—

John Adams, Shelton; W. P. Adams, Rochester; J. P. Anderton, Manchester; H. A. Bale, Exeter; J. A. P. Banks, Acton; W. C. Barmish, Wigan; John Bately, Great Yarmouth; Fletcher Beach, Bredport; William Bishop, Chipping Norton; J. W. Blandford, Corbridge; H. W. Boddy, Manchester; C. T. Brookhouse, Nottingham; Andrew Boulflower, Manchester; W. P. Bridges, Cirencester; J. A. T. Cartwright, Spalding; T. E. Clark, Kirby Lonsdale; C. H. J. De la Fertè, Porchester-terrace; T. W. W. Fay, Liverpool; Richard Fletcher, Bury, Lancashire; J. H. Forte, Brabadoes; J. H. Gay, Wisbeach; J. A. Giddings, Old Trafford; Walter Hart, Pimlico; R. M. Jones, Groes, Denbigh; Frederick Morgan, Taunton; J. R. Morgan, Merthyr Tydfil; S. J. Noake, Leeds; Frederick Page, Southsea; J. W. Paton, Ayr; George Payne, Wallingford; Wilton Provis, Bath; C. J. Rix, Manchester; Owen Roberts, Pwllheli; W. L. Roberts, Spitsby; Robert Robertson, Fowey; J. R. Rouch, Bristol; Pharoz Shore, Walsall; J. P. Sleightholme, Whitby; T. A. Somerville, Wilmslow; A. E. Sutcliffe, Scarborough; J. A. Thompson, Delamere-

street; John Tuck, Ilford; J. E. Ward, New Kent-road; W. J. C. Ward, Devonport; J. L. Williams, Wrexham; Owen Williams, Anglesea.

And on the 7th inst.:—Messrs. G. R. Nunn, Lyndhurst, Hants, and Jacob French, Deptford, students of Guy's Hospital; W. H. Drew, Gower-street, Bedford-square, of University College; R. B. Gilland, M.D. Glasgow, and L.S.A. Brentwood, of the Glasgow School; J. W. Pratt, L.S.A. Bradford, Yorkshire, of St. Mary's Hospital; and Ferdinand Beadles, Broadway, Worcestershire, of the Westminster Hospital. It is stated that only five out of the 57 candidates examined for the diploma of membership failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their hospital studies for the period of six months.

UNIVERSITY OF EDINBURGH.—We understand that an offer of £3000 has been made as an endowment for a special chair of Applied Mental Science, on condition that from £1500 to £2000 shall be supplied from other sources. Such a chair would render the University complete in every department of Mental Science, and would lead to most valuable practical results.—*Edinburgh Courant.*

ROYAL COLLEGE OF SURGEONS IN IRELAND.—A meeting of the Fellows was held on Tuesday, the 5th of May, at three o'clock, pursuant to the provisions of the Supplemental Charter, to witness the election of seven examiners to examine candidates for fellowship and letters testimonial, when the following gentlemen were elected, viz.:—John Barker, Maurice H. Collis, Christopher Fleming, Edward S. O'Grady, Benjamin W. Richardson, Edward A. Stoker, and Jolliffe T. Tufnell; three examiners to examine candidates for the diploma in midwifery, when the following gentlemen were elected, viz.:—John Cronin, James Isdell, and Edward J. Quinan; and three examiners to examine students as to their proficiency in general education, when the following gentlemen were elected, viz.:—Thos. Byrne, John Murray, and George F. Shaw.

THE FIRST SUMMONS UNDER THE NEW WORKSHOPS' REGULATIONS ACT.—Dr. Aldis, officer of health for St. George's, Hanover-square, has just done good service to the commonwealth by taking out two summonses against Miss Eleanor Salmon, dressmaker, of No. 49A, New Bond-street, for employing young women beyond the stipulated number of hours named in the Workshops' Regulations Act. The case was heard at Marlborough-street before Mr. Tyrwhitt, and Mr. Redgrave, the chief inspector of factories, was present. Any unpleasant revelations which might have been made were nipped in the bud by Miss Salmon's pleading guilty, expressing her sorrow for having unwillingly contravened the statute, and stating in excuse that she had had a "heavy mourning order on hand." Exactly so; it is precisely when the "heavy orders" are "on hand" that the poor milliners and dressmakers are worked nearly to death's door; and it was to prevent their immolation on the altar of fashion and vanity, shrieking out their "heavy orders" that this Act of Parliament was passed. To-day is the 1st of May, and the London season may be said to have fairly commenced. Nobody supposes that Miss Salmon would overwork her "hands," if she had nothing to do; but during the next four months she will, doubtless, be inundated with "heavy orders" for horticultural fetes, Crystal Palace concerts, balls, picnics, archery meetings, Ascot Cup days, and other "functions" of Vanity Fair. Miss Salmon having owned her culpability, and the officer of health having no wish to press for a penalty in the first case under the Act, Mr. Tyrwhitt discharged the defendant on payment of the costs; but he hinted that in future the Act must be more rigidly enforced; and Dr. Aldis, we are sure, will not falter in his labours. We have heard a good deal of Bethnal-green lately; but it behoves us to remember that there are Londoners within as well as "over the border," who, if we are remiss in exposing their grievances, may suffer as acutely in the palatial parish of St. George's as the wretchedest drudges suffer in the most pauperised districts of this metropolis.—*Telegraph.*

THE MOTHER AT HOME *v.* PUBLIC NURSERIES.—A writer in the *Queen* remarks on this subject, that while commending the good intentions of the promoters of Infant Day Nurseries, it cannot but be regretted that the efforts of those benevolent persons are not more wisely directed. Similar undertakings have failed over and over again, and they will continue to fail, because—apart from the question of management—the idea, however well meant, has arisen out of a wrong state of things, and is based upon an erroneous principle. The "infant day nursery," in fact, is a clumsy attempt to supply the place of the mother; and as those mothers who—from a short-sighted and mistaken policy—leave their families in order to earn a few daily pence, violate one of Nature's laws, the result *must* be disastrous to the infant population. It is true that the children who are sent to the "day nursery" may escape some of the dangers which threaten to overtake them if left at home while the mother is out at work; but nothing can compensate for the absence of the wife and mother from her home, notwithstanding what political economists may have to say upon the subject.

VITAL STATISTICS OF THE COUNTRIES OF EUROPE.—From a report just laid on the table of the House of Commons the following particulars have been selected:—"In France the marriages, which had declined from 305,203 in 1861 to 298,838 in 1865, rose in 1866 to 301,390; but the births, which numbered 994,288 in 1866, were 12,465 less than the number in 1865. To 100,000 of the population in France in 1866 there were 1584 persons married, while the proportional number in England was 1770; and to 100,000 of population in either country, the number of births was 2612 in France, and 3554 in England. Taking the interval between the mean age of the mothers at marriage and their mean age at the birth of their children at six years, then the number of legitimate births to a marriage in 1866 was 3·1 in France and 4·2 in England. The death-rate in France in 1866 was 23·26 per 1000 of population; that of England being 23·61. The population of the kingdom of Italy in 1866, exclusive of Venetia, was 22,703,135; the death and birth rates respectively were 28·96 and 38·62 per 1000 of population. Spain, with an estimated population in 1866 of 16,516,949, returned a death rate of 28·05 per 1000, and a birth rate of 37·03 per 1000. The results for the Austrian Empire, exclusive of the states of Italy, show a population in 1866 of 37,929,918, the respective death and birth rates were 32·32 and 40·34 per 1000 persons living; the marriage rate was low, 14·58 persons married to 1000 of population; but it will be remembered that 1866 was the year when disaster befell the arms of that empire. Thus, the returns of Austria show a birth rate much higher than the English rate, and conspicuously higher than the French rate. The birth rates of Italy and Spain are both higher than the English rate, and show a superiority only too striking over that of France. The death rate of Austria is considerably higher than the rates of England and France, and the death rates of Spain and the Italian kingdom contrast unfavourably with those of England and France."

APPOINTMENTS.

GAVIN, M. F., M.D., L.R.C.S.I., has been appointed successor to Dr. Ropes, as Surgeon to Out-patients' City Hospital, Boston, U.S.

MADDEN, THOMAS MORE, M.R.I.A., L.K.Q., & K.C.P.I., M.R.C.S.Eng., has been appointed Assistant-Physician to the Dublin Lying-in Hospital, Rotundo.

MORGAN, Mr., A.M., T.C.D., F.R.C.S.I., Professor of Practical Anatomy, R.C.S.I., &c., has been appointed Surgeon to the Westmoreland Lock Hospital.

BYRNE, Dr., has been appointed Consulting-Surgeon to the Westmoreland Lock Hospital.

NOTICES TO CORRESPONDENTS.

Gentlemen whose subscriptions are behind, are requested to send cheque or P. O. O. without further delay.

In consequence of the pressure on our space, several articles and letters are again held over.

Several subscribers have inquired about the Diary and Notices of the Week, as well as Notices to Correspondents. We beg to say they are only omitted on account of the press of other more important matter. We are obliged frequently to leave out Notices to Correspondents that would perhaps be interesting to many, and reply privately for various reasons.

The following resolution, which has been forwarded to John Brady, Esq., M.P., is sent us by a correspondent for publication:—

RESOLVED—That we, the Members of the Northern Medical Society of Liverpool, having had our attention drawn to certain recent cases, wherein certificates of death had been obtained by persons interested in such deaths, while the individuals to whom the certificates referred were *actually living*, beg to call the attention of the legislature to the form of certificate (herewith enclosed), as now supplied to Medical Practitioners.

That, while anxious to supply to the Registrar all the scientific information in our power as to the probable cause of death in any case where we may have been in attendance, we respectfully submit that we should not be asked to certify to the age, "last birth-day," or to the fact "that he died on ," inasmuch as such information is in all cases supplied to us by the person applying for the certificate. That it would tend materially to prevent fraud and oppose a serious barrier to the

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 20, 1868.

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THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S FOURTH LECTURE ON FOOD.

PRESERVATION OF FOOD.—UNWHOLESOME AND ADULTERATED FOOD.

(Continued from page 416.)

The flesh of animals that have been excited before death, as by over-driving, or by torture, has frequently proved unwholesome. A remarkable instance of this is quoted by Liebig in his Letters on Chemistry, where a family of five persons were made seriously ill by the flesh of a roebuck which had been caught in a snare and had struggled violently before death.

It is, moreover, a curious fact, that meat may be even poisonous from the nature of the food made use of by animals shortly before they are killed; and this, too, without any indication of disorder in the animals themselves. Hares which have fed upon the *Rhododendron chrysanthemum* are frequently poisonous; the same is the case with pheasants in Pennsylvania and Philadelphia which feed during winter and spring on the buds of the laurel *(calmia latifolia)*; and I have known many instances of serious mischief from Prairie birds, which are now largely imported into this country from America, and I attribute it to the food made use of by the bird. In certain districts of North America, especially on the Alleghany mountains, the flesh of all the cattle is poisonous, and so also is the milk they yield, and the cheese which is made from it. Oysters, mussels, lobsters, and crabs have frequently caused disturbance of the human system; and the probability is that they were made unwholesome by the food which they had eaten. A singular case is recorded in the medical journals of France in 1842, where a whole family at Toulouse were poisoned by a dish of snails, the animals having been gathered from a poisonous shrub *(Coriaria myrtifolia)*; and it is not at all uncommon for honey to be unwholesome, on account of its having been collected by the bees from poisonous plants. The honey of Trebezond, for example, has long been notorious for its deleterious properties; it poisoned the soldiers of Xenophon during the famous retreat of the ten thousand. Pliny, too, speaks of it; and to this day its intoxicating effect is frequently witnessed. It arises, no doubt, from the plants, chiefly the *Azalea pontica*, from which the honey is gathered. Mr. Barton has given us a similar account of the poisonous quality of the honey gathered by the bees from the savannahs of New Jersey, where the *calmia* and *azalea* were the principal flowering shrubs. As with the followers of Xenophon, all who ate of the honey became intoxicated to a high degree; even when made into metheglin, it poisoned all who partook of it, causing dimness of sight, giddiness, and then delirium, with sometimes a fatal termination.

Occasionally we have examples of food which is in itself poisonous. This is so with many of the fish of tropical seas, and especially of the West Indies. Dr. Burrows has given us a long list of them; and it would seem that the yellow-billed sprat (the Sardine doré of the French and *clupea thryssa* of naturalists), the toad, or bladder-fish *(aplodactylus punctatus* or *Tetraodon* of Cuvier) and the gray-snapper *(coracinus fuscus major)* are the most venomous; and that, being eaten by larger fish, as the *Baracosta*, and various species of perch, as well as the conger-eel, the dolphin, the globe fish, &c., it causes these to be poisonous also. The yellow-billed sprat is so virulent in its action on the human body that both Europeans and negroes have been known to expire with the fish in their mouths unswallowed; and the toad, or bladder-fish, is scarcely less dangerous. Sir John Richardson has described the effects of it on two sailors, the boatswain's mate, and purser's steward, of the Dutch brig of war, *Postilion*, while lying at anchor in Simons Bay, at the Cape of Good Hope in September, 1845. The men were warned that the fish was poisonous, but believing that the liver was wholesome and rather a delicacy, they cooked it, and ate it directly after their twelve o'clock dinner. In ten minutes the boatswain's mate was so ill that he could not stand; his face was flushed, his eyes glistened, his lips were swollen and rather blue, his forehead was covered with a cold perspiration, and his pulse was weak and fluttering. He was, however, quite conscious, and complained of pain and constriction of the throat; and he had a desire to vomit. In a few minutes more he became paralysed, his eyes were fixed, his breathing was laborious, his face was pale, though his lips were livid, and in seventeen minutes he was dead. The other man exhibited the same symptoms, and died in twenty minutes. Sir John Richardson says, the fish was not more than six or eight inches in

length, and the liver of it which they had eaten between them, could not have weighed more than half an ounce.

The symptoms occasioned by the poisonous fish of the tropics are always of two kinds: there is either great irritation of the stomach and bowels, like cholera; or there is rapid prostration of the vital powers, and death by syncope or convulsions. These effects have been long known to both natives and Europeans, and were called by the Spanish colonists of Tropical America, *Siquatera*. They are more frequently observed at certain seasons of the year than at others, and hence, they are thought to be due to certain physiological changes in the body of the fish, or to the food which it has eaten. In some cases the roe, in others the liver, or the digestive organs are the most poisonous parts of the fish; and in the case of the *maletta venenosa*, which inhabits the Caribbean sea, it is only poisonous when the sea is covered with a green monad upon which the creature feeds. Happily for us, these dangers are confined to the tropics, although we sometimes suffer from a milder form of disturbance, as irritation of the skin and bowels, from eating unwholesome shell-fish.

Putrid meat is, perhaps, wasteful, rather than actually injurious; but there are plenty of cases in which it has caused disease. Foderé tells us that at the seige of Mantua, those who were shut up in the city, and were obliged to eat the half-putrid flesh of horses, suffered from gangrene and scurvy; and in Czant's history of Greenland there is an account of the death of thirty-two persons at a missionary station called Kangek from a repast on the putrid brains of a walrus. Similar cases are recorded in all the books on legal medicine. Even game, when only sufficiently tainted to please the palate of the epicure, has caused severe cholera in persons unaccustomed to it; but as Dr. Christison observes, "the power of habit in reconciling the stomach to the digestion of decayed meat is inconceivable. Some epicures in civilised countries prefer a slight taint even in their beef and mutton: and there are tribes of savages still further advanced in the cultivation of this department of gastronomy, who eat with impunity rancid oil, putrid blubber, and stinking offal." The Zulus of Natal, according to Dr. Colenso, are so fond of putrid meat that they call it *ubomi*, which literally means to be superlatively happy. But, as a rule, there is a natural abhorrence of tainted food, insomuch, that with most persons, the mere commencement of decay is sufficient to excite disgust; and rarely do we find, except among savages, that an entire meal is made of putrid flesh. A little game or venison, or ripe cheese, at the end of a feast, with just a piquant touch of decay, is perhaps not objectionable; for it may, as Liebig supposes, promote digestion, by communicating its own quality of transformation to the rest of the food; but it is another thing to fill the stomach with putrid flesh, for if the corrective power of the gastric juice should fail, the effect of it might be serious. We have, indeed, abundant evidence of the terrible consequences of admitting putrid matter into the circulation, for they were once too common among those engaged in the dissection of the human body. In fact, the mere handling of decomposing animal matter for any time, will often produce disease of the hands or other parts of the body with which it comes into contact. Our safety, perhaps, in using such food, is in the antiseptic power of good cooking, but this is not always an easy affair; for the tissues are generally so soft from decay, that they will hardly bear the common action of heat; so that if they be boiled for any time, they will fall to pieces; and if they be roasted, they will shrink without forming that delicious crust of osmazome which is characteristic of good meat. Let them, however, be cooked as they may, they always require a nice adjustment of rather strong flavours to make them palatable; and those who have dined in the cheap restaurants of Paris, or at the still worse table d'Hote of a German watering-place, will have experienced the art of the cook in this respect, in such dishes as *turbot en vol-au-vent, Raie au beurre noir, sole en matelote Normande*, and in the various forms of fish, *au gratin*; or game, *en salmis*.

But bad as this sort of tainted food is, it is nothing in comparison to the sausage poison, which is produced by a sort of modified putrefaction to which the large sausages of Germany, and especially those of Würtemburg, are occasionally subject. According to an official return there have been more than 400 cases of poisoning from these sausages in Würtemberg alone during the last fifty years, and of these about 150 were fatal. The effects are generally observed in spring, and mostly in April, when the sausages become musty, and acquire a soft consistence in the interior. They have also a peculiarly nauseous and rather putrid taste, and are very acid to test-paper. If eaten in this condition, they produce dangerous effects in from twelve to twenty-four hours — the first symptoms being pain in the stomach, with vomiting and diarrhœa, and dryness of the nose and mouth; then comes a feeling of profound depression, with coldness of the limbs, weakness and irregularity of the pulse, and frequent fainting. Fatal cases end with convulsions, and oppressed breathing between the third and eighth day. The precise cause of these effects is still a mystery; some have thought that rancid fatty acids are produced during the decomposition of the meat; others that in the process of drying and smoking, acrid pyrogenous acids have been developed; others that during the decay of the sausages, a poisonous organic alkaloid is generated. Liebig is of opinion that the effects are due to an animal ferment, which produces in the blood, by catalysis, a state of putridity analogous to its own, and that the molecular movements of the putrefactive change in the decaying meat are thus communicated to the living organism. M. Vanden Corput, who is one of the most recent investigators of the subject, attributes the morbific action of such meat to the presence of a minute fungus of the nature of a sarcina, which he calls *sarcina botulina*. This view is confirmed by the fact that there is always a peculiar mouldiness of the sausages; and the poisonous property is generally observed in April, when these cryptogamic organisms are most freely developed.

Similar effects have occasionally been produced by other kinds of animal food—as veal, bacon, ham, salt-beef, salt-fish, cheese, &c., and the food has usually been in a decayed and mouldy condition. It would be tedious if I were to detail, or even to enumerate the cases recorded by medico-legal writers; but I may, perhaps, refer with advantage to a few of them. In 1839, there was a popular fete at Zurich, and about 600 persons partook of a repast of cold roast veal and ham. In a few hours most of them were suffering from pain in the stomach, with vomiting and diarrhœa, and before a week had elapsed, nearly all of them were seriously ill in bed. They complained of shivering, giddiness, headache, and burning fever. In a few cases there was delirium; and when they terminated fatally, there was extreme prostration of the vital powers. Careful inquiry was instituted into the matter, and the only discoverable cause of the mischief was incipient putrefaction and slight mouldiness of the meat. Dr. Geiseler relates an instance where a family of eight persons were made ill by musty bacon; and M. Ollivier has given an account of six persons who were poisoned by mutton in a state of modified decay—four of whom died from it within eight days. In Russia, where it is the practice to eat largely of salt-fish, in a raw condition, it is not at all uncommon to witness the dangerous effects of it, when it has become mouldy or putrid; and in fact it is within the experience of every one who is concerned in medico-legal inquiries, that serious symptoms are frequently traced to the use of food in a modified condition of decay. This is especially so with bad cheese, the effects of which on the constitution have been so severe, that official investigations have been called for. These effects have been noticed at Schwerin (1823), at Minden (1825), at Hameln (1826), at Greifswald (1827), Frankfort (1828), and elsewhere; and they have been the subjects of interesting essays by Henneman, Hünefeld, Westrumb, and others. At first the effects were attributed to the copper-vessels used in the dairies, and therefore the

Austrian, Wirtemberg, and Ratesberg States prohibited the use of that metal for such purposes; but the subsequent inquiries of Hünefeld, Sertürner, and other chemists, established the fact that no metallic poison was discoverable in the cheese. In the Police Report, which was published in Frankfort, in January, 1828, informing the public of numerous cases of poisoning in that city from spoiled cheese, it was declared that no poisonous principle could be detected by chemical re-agents. Professor Hünefeld, and subsequently Sertürner, were of opinion that the effects were due to certain poisonous fatty acids, analogous to, if not identical with, caseic and sebacic acids; and they even describe the way in which they are produced in the cheese during the process of ripening—attributing them to the imperfect removal of the acid liquor from the curd when the cheese was made, or to the putrefaction of the curd before it was salted, or to the mixture of flour with the curd; but it is far more likely that the poisonous effects are due, as Vanden Corput supposes, to the presence of a peculiar mould or fungus. I have myself seen the most terrible consequences from the use of such cheese, and have failed to discover anything unusual in the acidity or other chemical reactions of the cheese. Hünefeld says, it is commonly a yellowish-red, soft and tough, with harder and darker lumps interspersed throughout it, and that it has a disagreeable taste, and an acid reaction. The symptoms which it produces are very much like those of sausage poisoning—namely, irritation of the stomach and bowels, with great prostration of the vital powers. These effects have been witnessed not only in Germany, where the cheese are generally rancid and bad, but also in this country, and particularly among the small hill-farms of Cheshire, where the limited extent of the dairies obliges the farmer to keep the curd for several days before a sufficient quantity of it is accumulated to make a large cheese.

I have said nothing of the improper practice of killing very young animals, especially calves, for food, before the tissues have had time to change from their uterine condition. On the continent it is unlawful to kill or to sell calves for food that are not more than fourteen days old, but in this country there is no such restriction, and it is a common practice to dispose of the carcasses of newly-born, or even fœtal calves, to the sausage-maker; and as the flesh is sodden and insipid, he strengthens it with old, tough, and sinewy flesh. It has the advantage, moreover, of being miscible with any description of meat, and of taking any variety of flavour; in fact, it makes just that kind of sausage which is susceptible of any kind of flavour, and where, to use the expression of Dickens, "it's the seasonen as does it." I cannot say that such meat is positively unwholesome, but it is nasty, and excites the same sort of disgust as an egg with a chick in it.

As regards vegetable foods, they are not so liable to decay or even to parasitic infection, as animal foods; for the acori or mites of flour and sugar, or even the weevels of biscuit are harmless; indeed, the most important infection of grain is the fungoid disease of it, called *ergot*. This is the *muttercorn* or *roggenmutter* of the Germans, and as it chiefly infests the rye, it is named, from its appearance, *spurred-rye;* but it also attacks barley, oats, wheat, maize, rice, and most of the grasses. It always appears as a black grain, of a larger size than usual, and it is mostly found in plants which grow upon moist clay soils, in damp situations, especially in the neighbourhood of forests. The district of Sologne in France, between the rivers Loire and Cher, was once notoriously infested with the disease, and the Abbé Fessier, who was deputed in 1777 to investigate the causes of the extraordinary prevalence of ergot in that district attributed it to the poorness and wetness of the land, and to the dampness of the air from the numerous forests. In bad seasons, as much as a-third or a-fourth of the crop was infected with ergot, and even in good seasons it constituted about 2 per cent. of it. The disease in the grain is due to the growth of a peculiar fungus, which the late Mr. Queckett named *ergotetia abortifaciens;* and the effects of it on the human body are very serious. It acts chiefly on the nervous system, causing giddiness, dimness of sight, loss of feeling, and twitching of the limbs, and death by convulsions; or it produces a creeping sensation over the surface of the body, with coldness of the extremities, followed by insensibility and gangrene. These effects are no doubt referred to by Ligebert in his History of Gaul and France, when he says that the year 1089 was a pestilent year, especially in the western parts of Lorraine, for many persons became putrid in consequence of their inward parts being consumed by St. Anthony's fire. Their limbs were rotten, and became black like coal, and they either perished miserably, or, being deprived of their putrid hands and feet, were reserved for a more miserable life. Bayle, too, in his account of this sickness says, that the bread was of a deep violet colour. The like effects have been observed in other parts of the continent, as in Silesia, Prussia, Bohemia, Saxony, Holstein, Denmark, Switzerland, Lombardy, and Sweden, where the creeping sickness, as it is called, has attacked whole districts of the country, sparing neither old nor young, nor rich nor poor.

The remedy for the disease is in the hands of the miller, who should separate the ergotised from the healthy grains. Fortunately we have a ready test for its presence, not merely in the microscopic appearances of the flour, but in the circumstance that as it is the lightest of all the constituents of flour, it will float upon a mixture of 1 part of chloroform and 6 of alcohol, and will appear as a scum of dark brown particles.

Another source of danger is the presence of the ground seeds of poisonous grasses in the flour. The most important of these is darnel (*lolium temulentum*), which the careless or slovenly farmer will sometimes permit to overrun his fields, and the seeds becoming mixed with the corn, are ground into flour by the equally careless miller. The effect of the grains on man, is to cause a species of intoxication, with headache, giddiness, somnolency, delirium, convulsions, paralysis, and even death. Occasionally it excites vomiting, with irritation of the alimentary canal, and then its effects are not so serious. Many instances are recorded of the poisonous action of the flour. Christison, for example, tells us, that a few years ago almost all the inmates of the poor-house at Sheffield, to the number of 80, were attacked with analogous symptoms, after breakfasting on oatmeal porridge, and it was supposed that the effects were caused by the presence of darnel in the oatmeal. A similar accident is mentioned by Perleb as having occurred at the House of Correction at Freyburg, and still more recently the same effects were produced on 74 persons at the workhouse of Beninghansen. Dr. Taylor states, on the authority of Dr. Kingsley, of Roscrea, that in the month of January, 1854, several families, including about 30 persons, suffered severely from the effects of bread containing the flour of darnel seeds. Those who partook of the bread staggered about as if they were intoxicated, and although they all recovered, yet they experienced a good deal of distress from giddiness, coldness of the limbs, and great prostration of vital power.

Unripe grain, as well as grain affected with the *rust*, and *mouldy flour* and *mouldy bread*, have also produced disturbance of the human system. M. Bouvier attributed the epidemic of dysentery, which occurred in the department of the Oise, in the autumn of 1793, to the use of *unripe grain;* and corn affected with *brown* or *black rust* is thought by many to be unwholesome. *Mouldy flour* or *mouldy bread* is certainly injurious, for several instances are on record where not only man, but horses, have been poisoned by mouldy bread; and M. Payen has given a graphic account of the distressing effects of the mouldy ammunition-bread supplied to the troops who were encamped near Paris in 1843; the mould on that occasion was a yellow fungus, the *oidium aurantiacum*, but at other times it has been of a green colour, from *pennicillum glaucum*.

Mouldy food of every description is dangerous to use, and considering to what an extent the *spores* or *sporidia* of

poisonous fungi are floating in the atmosphere, it is surprising that they do not more frequently taint our food and cause disorder of the system, for air washed with distilled water will always yield abundance of these germs, which are ready at any moment to spring into activity, when they come into contact with a proper nidus for their growth. As in nearly all the cases to which I have referred the remedy for these hidden sources of danger is good and effective cooking.

(To be continued.)

Original Communication.

THE RATIONAL TREATMENT OF CONSUMPTION.

By JOHN MULVANY, M.D., L.R.C.S.Ed., Etc.,
ASSISTANT-SURGEON, R.N.

(Continued from page 418.—Conclusion.)

TREATMENT.

HAVING shown that a deficiency of oxygen in the blood is the "fons et origo mali" of tuberculosis in its first stage, the treatment will naturally consist in remedying the chemical errors which have resulted from it. The patient must be instantly removed, to a healthy atmosphere, daily corporeal ablutions must be prescribed, gentle exercise must be ordered. Pettenkofer and Vogt having shown that the elimination of carbonic acid is thereby increased, oxygen must be added to the blood. Permang. potassæ probably offers the best vehicle for it, containing, as it does, two or three atoms in its allotropic or most active state. When the acidity and dyspeptic symptoms have been removed, the patient may be put on a liberal diet, with a bottle of porter daily, and cod-liver oil. I select the following case in illustration of the efficacy of the above treatment.

Thomas Hacklin, æt. 28, a labourer, residing a few miles from Haldimand, on the Port Dover-road, applied to me, August 28th, because all his money was spent on medical advice ashore, and begged me to try and do something for nim ; he was accompanied by his stepmother aud brother, and from them I got the following history of his case :—His father, mother, and other relatives died of consumption, he has had a cough for a year and a half or two years, this latterly has become much worse, occurring in paroxysms, which when of unusual severity give rise to epileptic fits. He has had these fits since the commencement of the year (eight months.) They occurred at first at longer intervals, but now recur two or three times a week ; and according to his mother-in-law and brother's statement are very severe, and generally followed by a state of maniacal excitement, during which he would smash the chairs, tables, crockery, &c., or run mad into the woods. They were consequently obliged to keep him always in view.

His appetite was bad ; his tongue looked swollen and flabby ; his gums had a ragged appearance, attached to the sides of the teeth ; they had receded from the anterior aspect of their necks almost up to the alveoli, giving them a formidably long appearance ; he had long been losing flesh ; suffered from chills, palpitations, sweats, &c. ; his pulse was 89 ; respirations 19 ; temperature 100°3 ; heart's action a little irregular ; has but little expectoration, which has been several times bloody ; beneath the right clavicle there was dulness on percussion ; a crackling in respiration ; expiration prolonged ; inspiration weak ; and broncophony. Beneath the left there was a well-marked arterial souffle, the blood appearing to be propelled into the stethoscope by each systole ; no dulness or other abnormal sound. This case, highly unfavourable for treatment as it appeared, was just the one to test the value of the theory I have explained. Here was tubercle in the right lung, and the apex of the left lung in that state from which tubercle is formed, complicated with a most formidable disease, epilepsy possibly depending on tubercle in the brain, evidently closely connected with the lung affection—for his mother-in-law and brother were positive that the fits were only brought on by severe coughing. It might be that some of the products of imperfect oxidation, of which I have already made mention, accumulated to such an extent in the brain during the fit of coughing, as to produce by their noxious action the eruptive discharge of Todd ; at all events, it was certain that to cure the epilepsy, it would be necessary to take away its exciting cause—viz., tubercles, and the condition of blood by which these were produced. Having cleared out his bowels with a calomel and jalap purge, I ordered him the following, a bottle of porter daily and

℞ Potassa permang. gr. v.
Aquæ destill ℥i. solve.
Sumat gr. xx., 4tis horis.

I advised him to have a cold bath every morning, and use plenty of soap, and be as much out of doors as possible. After four days, I recommended ℥ss. ol. morrhuæ to be taken *ter die* with the potassa permang. At the end of a week he was improved in appetite and spirits, but the fits continued as before up to the tenth day ; from that time they ceased ;* he gained rapidly in weight ; the cough gradually ceased ; the broncophony, souffle, and dulness became small by degrees and beautifully less, until by the end of September, when considering himself well, he went to Hamilton to a situation, where he now remains.

When a vomica has formed, the indications to treatment are rather more complex. Here, though imperfect oxidation is the determining cause of successive tubercular formations, the mechanism whereby this imperfect oxidation is brought about must claim our prior attention. As the morbid action going on in the vomica is the mainspring which sets the other machinery in motion, an attempt to modify and improve the condition of that cavity would naturally suggest itself to one's mind as the most feasible method of cure ; but such attempts, though repeatedly made by inhalations and injections, have been rendered futile by the spastic condition of the bronchial fibres alluded to, hindering the free application of the medicines employed. But if we first remove bronchial spasm by soothing the excited pneumogastric, and lessen at the same time the abnormal activity of the sympathetic, whereby we remove arterial contraction, enlarge the arterial stream, sweep away capillary congestion, promote the elimination of carbonic acid, and lessen the frequency of the heart's action, we may hope to attack the vomica with success. For this purpose, inhalations of nitrate of silver from 8 grs. to 16 grs. ad. ℥i. may be used by means of the kettle apparatus, or 4 grs. ad. ℥i., by a Richardson's atomizer. At the same time we must inculcate daily ablution of the entire body, open-air exercise, remove acidity by promoting oxidation, guard against unfavourable atmospheric influences, and the occasional dearth of ozone by keeping the blood arterialised, and, as I may be permitted to say, ozonified by permanganas potassa, which, according to Schönbein, contains two or three atoms of oxygen. In that allotropic condition we must give cod-liver oil and an occasional glass of porter. Whiskey is used in this country in large doses, but its effects must be watched carefully. To lessen nervous excitement is obviously of the first importance. For this purpose veratrum viride will be found admirably adapted. Unlike other medicines which "whilst depressing the pneumogastric, excites the sympathetic," it appears to exert a depressant effect over the entire nervous system. The dose, however, can be so adapted that instead of depressant it becomes calmative. Veratrum viride is a powerful, but by no means dangerous medicine; neither botanically nor chemically allied to black hellebore, as its name, green hellebore, would seem to imply, it does not possess the therapeutical properties of that drug. Belonging to the same class and order as veratrum album, it was supposed to possess the same active principle —viz., veratria—a supposition which rendered many diffident of using it. However, it has been shown by Professor Bullock and others, that although its active principle

possesses the physical characters of veratria, they differ chemically: the active principle of veratrum viride forming a colourless solution in cold hydrochloric acid, which heat only slightly deepens, whilst veratria forms a colourless solution with the same menstruum, which boiling changes to an intense red.

Being therefore neither possessed of the cathartic properties of the melampodium, nor of the irritant stimulating qualities of its kindred melanthaceæ, it may be used fearlessly in all cases of nervous excitement, spasmodic affections, and inflammatory complaints. In recommending it in tuberculosis, I do so on physiological principles. The benefits I expect to derive from it consist in lessening the abnormal activity of the sympathetic, thereby reducing the heart's action; relaxing the contracted state of the small arteries, thereby removing congestion; increasing the abdominal secretions, giving an excellent appetite and capital digestion. Removing bronchial spasm, it favours the interchange of gases, facilitates expectoration, and lessens cough accordingly, and as I have said before, the heat of the body. Its effects are similar to alcohol; its mode of action very dissimilar—alcohol supplementing nerve-power, veratrum viride removing undue excitement. Alcohol is most useful where simple nerve-debility exists; veratrum viride where there is undue excitation or irritability.

In phthisis there is a combination of both conditions; hence the administration of both remedies is by no means illogical. Dr. Barker cites a case in which veratrum viride produced no effect on the pulse until he gave brandy. It fell after the first ounce from 130 to 108; after the second it fell to 86. He then withdrew the veratrum and continued the brandy. The pulse rose again in a few hours to 130; withdrawal of the brandy and a continuance of the veratrum had a precisely similar effect. Under the combined influence of the two he kept the pulse below 80 per minute.

When the sympathetic excitation is greatest its effects are most marked. By continuing its employment for some weeks it loses its effects, and eight times the original dose will require to be given.

What chloroform is to tetanus, that is veratrum viride to tuberculosis: it suspends the morbid secondary actions, and we are thereby enabled to attack tuberculosis in its very citadel.

But it may be said its action is exercised directly on the muscular system of the heart and muscular structure in general, and not through the media of the nerves. To ascertain its mode of action I gave a scruple of the fluid extract to a large dog. In a quarter of an hour he vomited, the pulse fell fifty beats, and the respirations were reduced from 29 to 20.

July 12th.—Cut both vagi in a dog. Pulse before the operation 80 to 90, intermitting; after section 140, and steady. In two hours gave ℈i. verat. virid. The pulse fell to 100 in half-an-hour, and became gradually slower until life became extinct, twenty-three hours after the operation. The body cooled so rapidly that it was quite cold long before death.

August 20th.—Got another young dog; cut the right sympathetic above the middle cervical ganglia. Pulse before the operation 98; after fell to 58. Two hours afterwards gave a scruple of veratrum viride. The pulse was reduced only two to four beats, and soon went up again.

In the early part of July a German weaver applied to me, suffering from obstinate hiccough of five years' standing. He had been to all the medical men around and in Buffalo during that time, and being tired of medical men on shore he wished to try those afloat; there was a spasmodic contraction of the diaphragm every two or three minutes; he could hardly jerk out half-a-dozen words consecutively; latterly he could get but very little sleep, and was much worn in appearance. On examination I found the abdomen deeply marked by blisters, and a deep sulcus in the site of the diaphragm. He had angular curvature of the spine, and percussion over the spine between the first and third dorsal vertebræ caused pain. On coming to this country, five and a-half years ago, he was attacked with ague, the hiccough remained as its sequela, and has never left him since. Considering that an irritation of the spine between the tender points was reflected by the phrenic and produced the diaphragmatic spasms, I applied a blister over the tender part, kept it open for a week with ung. hydrarg., and gave him calomel and opium internally. This succeeded admirably for a week, and the patient was in high spirits, when suddenly his old man of the mountain returned, and he was as bad as ever. I now ordered him ung. let for the blister, and ℥ ii. veratri virid fl. ext., *ter die*, ex aqua. A gradual improvement now took place, and in about two weeks the hiccough became periodical, returned only on Thursdays; he went to his work in the States, and I have never heard of him since; a few doses of quinine would probably remove the last vestige of it, but probably he was so delighted at getting so well that he did'nt mind an attack once a week.

This case shows that veratrum viride will remove spasm when caused by excitation of a spinal nerve. Experiment 1 shows that it will depress the general nervous system. 2. That it will depress the sympathetic. 3. That it will depress the pneumogastric, the very slight reduction of the heart's beats, resulting from the depressed effects on the vagi, being counterbalanced by a similar effect on the sympathetic; were its action exercised on the muscular tissue of the heart alone, its effects should be greatest when the heart's power was weakened by section of its motor nerve. Such, however, was not the case.

Richard G——, æt. 24, in last March had an attack of pleuritis. In April he suffered from phthisis; a large vomica rapidly formed in the right lung, and an arterial bruit was heard in the apex of the left. In the early part of July he had sufficiently recovered to be discharged to duty. Being afflicted with constitutional laziness he slept the first night after being discharged to duty in damp blankets, rather than take the trouble to air them. On two or three other occasions he got wet through whilst sleeping under an awning, and the consequence was an attack of pleuritis, and a rekindling of the tubercular disease.

August 5.—The vomica in the right lung extends from its apex to the lower margin of the third rib, and there are unmistakable symptoms of tubercle in the apex of the left. His respirations are 34 per minute; pulse 116; temperature 103°·5; skin dry and burning hot; no appetite; cough frightfully severe; night sweats; sputa copious, excessively offensive; almost fæcal in smell; greyish yellow, frothy, tenacious, striated, and showing trabecula under the microscope, adhering to the vessel. On pouring it into a cup it comes away without solution of continuity; it was covered with two other layers, the top of thinner consistence, containing air-bubbles, the intermediate seen by tilting the vessel on its side, consisting of independent shilling-sized yellowish thick sputæ.

℞ Potassa. permang., gr. v.
Aquæ destillat., ℥i. ℥.
St. gtt. xx., ter die.

℞ Veratri virid, fl., ext. ℥i. and ℥xx.
Morphiæ sulph., gr. iii.
Aquæ, ℥viii. ℥. st. ℥ss., ter die.

℞ Creosoti, ℥ xx.
Alcohol, ℥i.
Aquæ destil., ℥viii. ℥.

One ounce to be inhaled by means of the atomizer morning, noon, and night.

August 9.—Pulse 90; respiration 15; thermometer 99°; expectoration about an ounce, free from smell; skin cooler.

11th.—Pulse 91; respiration 15; thermometer 99°; cough slight; expectoration almost nil; no night sweats; gaining rapidly in weight and spirits; coughed up last night and yesterday several round white pellets, and a few others coated with blood, probably cretified tubercle; skin perfectly cool.

13th.—Respiration 14; pulse 79; skin cool: omit mist. verat. virid.

14th.—Respiration 14; pulse 78; skin cool.

16th.—Respiration 16; pulse 79; thermometer 99°; no sputa; hardly any cough.

19th.—Respiration 20; pulse 80; thermometer 99°; skin *quite cool;* the broncophony and dulness of the left lung have quite disappeared; the vomica in the right has filled up from below, leaving but a small cavity the size of the end of the stethoscope in the apex above the clavicle. I sent him on board; in consequence, however, of the mode of filling up of the cavity, the slight expectoration which remained, not finding a ready passage into the bronchi, produced a good deal of cough when in the recumbent position; for this I found a hot glass of brandy-punch the best remedy, given at bed-time. Fearing the inclemency of the Fall weather, I recommended him for survey, and he was invalided.

September 24th.—Condition thus—Pulse 80; thermometer 99°; respiration 19; hardly any sputa; no cough but at night; still gaining in weight; lung as above described; recommended him to still continue the permanganate and cod-liver oil. I purposely selected the second attack of phthisis this man had, because, *first*, long cases are tedious; *second*, it was of greater severity, and, therefore, better adapted to portray my method of treatment, illustrating by its efficacy the correctness of the theory on which it is based. This patient was not hereditarily predisposed to phthisis, none of his family died from it, he was strong and healthy until the causes already mentioned developed tubercle in his right lung, which progressed with such remarkable rapidity that a vomica of great magnitude was formed in less than two months. Tubercle in its first stage escaped detection; in the second attack the presence of tubercle in the left lung indubitably showed that the disease was true tuberculosis. The effects of potassa permanganes are shown in the arrest, by cretification, of the tubercular action in the left lung, and the subsequent expulsion of cetified tubercle. The inhalations are of great benefit, but should be always employed when nervous excitement has been removed by veratrum viride: it will be necessary to vary the medicines inhaled. Arg. nit. Iod. ferri. mur. ℈i. ad ʒi. are most useful when the expectoration is profuse and fœtid; creosote when there is irritative cough. Alcohol should not be given when the tubercular action is energetic, it will probably induce pleuritis or hæmoptysis. An eminent authority has recently spoken of the fever of phthisis as one quite beyond our control. I would point to the perfect coolness of the skin, and normal pulse of the foregoing case, as an instance of its amenability to a rational treatment.

Hospital Reports.

CITY OF DUBLIN HOSPITAL.

CASE OF HÆMORRHAGE FROM THE DORSAL ARTERY OF THE PENIS OF UNUSUAL SEVERITY.

Under the care of Mr. CROLY.

W. C., aged 27 years, a shoemaker, was admitted into the City of Dublin Hospital in the middle of the night, on account of severe hæmorrhage from the Penis. On inquiry it was ascertained that he had a chancre on the right side of the glans for six weeks, and inflammatory phymosis for two weeks; and that half-an-hour previously to his admission into hospital, while in the act of passing water, the bleeding occurred. He lost a large quantity of blood, and was in a very weak condition.

The Resident Pupils (Mr. Browne and Mr. Finlay) promptly applied pressure on the part, and administered restoratives. Finding that the hæmorrhage could not be thus controlled, a silver catheter was introduced, and a compress placed over the bleeding part, secured by bandage.

This treatment temporarily arrested the bleeding, which, however, soon recurred, and Mr. Croly (the Surgeon on duty) was sent for. He immediately slit up the prepuce, and found a depression on the glans, from which a slough had been partially cast off, and from which there was profuse arterial bleeding. The surrounding diseased surface was freely touched with strong nitric acid, and scraps of lint saturated with the liquor ferri perchloridi fortior were applied to the bleeding point, and retained by a roller (the catheter being still kept in the urethra). The Penis was elevated against the Pubes; a full opiate was administered. The hæmorrhage, which was thus controlled, returned after *four* days with violence, and continued at intervals, resisting treatment. It was consequently found necessary to apply the fine-pointed actual cautery, which, combined with continued digital pressure, proved successful.

Notwithstanding, hæmorrhage occurred again and again as often as *fourteen* times, at varied intervals. On each occasion it was arrested by digital pressure. The patient was consequently much exhausted, and unfortunately got an attack of acute bronchitis, which was treated by dry-cupping and expectorants, his strength being kept up by nutritious diet and suitable stimulants. Opium and tartarised iron were also prescribed on account of the phagedænic ulcer.

The case terminated favourably, notwithstanding the repeated hæmorrhage and the complication of bronchitis.

Mr. Croly made this case a subject of clinical instruction to the class, observing on the unusual severity of the hæmorrhage (resulting from a diseased state of the artery), which resisted the ordinary treatment, and which recurred with so much violence on several occasions, requiring the actual cautery and careful digital pressure, which was effectually applied by the resident pupils. He also explained the necessity of slitting the prepuce, on account of the inflammatory phymosis, to reach the bleeding-point, and detailed the several modes of arresting such form of hæmorrhage. The constitutional treatment by opium and tartarized iron was also dwelt upon.

MATER MISERICORDIÆ HOSPITAL.

PARTIAL RUPTURE OF RIGHT RECTUS ABDOMINIS MUSCLE.

Under the care of Dr. HAYDEN.

JOHN S., aged 50, a labourer, was admitted into hospital February 10, 1868. Two years previously he was caught between two carts, and was hurt in the lower part of the right side, but not disabled from work. Six weeks ago he was attacked with severe pain in right side, which was aggravated by coughing, and one week prior to date of admittance he strained himself whilst tying a load of straw, and felt sharp pain in the right side of the abdomen, superiorly. The man seemed in good health, was hale-looking and free from febrile symptoms; tongue moist and clean; no jaundice. He complained of acute pain in the abdomen on making a full inspiration, or any movement of the body involving contraction of the anterior abdominal muscles.

About two inches below the margin of the right costal cartilages, and over the right rectus muscle there was a slight fullness, tender on pressure, nodular to the touch, resonant on percussion, and extending nearly quite across the muscle; this was the seat of pain above referred to.

The man was kept at rest for a few days, and a small blister was applied over the swollen and tender part. He was dismissed quite well.

The injury which this poor man had sustained in the right side two years before admission, and the acute pain which he subsequently felt there, taken in connection with the locality of his present suffering, might, and in the mind of a medical gentlemen of experience who saw him before he came under Dr. Hayden's notice, actually *did*, lead to the suspicion of injury or disease of the liver, but the absence of general symptoms, and the precise situation,

and percussion resonance of the swelling, excluded this hypothesis, whilst the history of muscular strain a week previously, the situation of swelling and tenderness, and the absence of pain, save during contraction of the rectus muscle, served to establish a positive diagnosis.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By C. R. C. TICHBORNE, F.C.S.L., Etc.,

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of statements made in any of the papers quoted in the compilation.]

ISOMERIC FORMS OF VALERIANIC ACID.

It is well-known that there are two isomeric amylic alcohols (fusel oils), one of them does not rotate a ray of polarized light, whilst the other does. Messrs. Frankland and Duppa state that ordinary valerianic acid rotates a ray of polarized light to the right; whilst Wurtz asserts that ordinary valerianic acid is without action upon a polarised ray. Mr. Alexander Pedler has been experimenting with a view to determine if there are two acids corresponding to the two amylic alcohols. He finds that there are two; and that they can be prepared with ease from their respective alcohols by the ordinary oxidizing process.

The amylic alcohols were prepared by making sulphamylate of barium from the ordinary fusel oil, and separating the mixed sulphamylates by fractional crystallization; the barium compound obtained from the active amylic alcohol being about two and a-half times as soluble as that obtained from the inactive amylic alcohol. The two amylic alcohols were then obtained by decomposing their respective sulphamylates. The amylic alcohol obtained from the less soluble sulphamylate had a boiling point at 129° C., a penetrating and oppressive odour, which produced coughing, and a burning taste. In the polariscope it was found to be perfectly incapable of rotating the ray of polarized light.

When this alcohol was oxidized in the ordinary manner, no effervescence was observed; and the valerianic acid obtained, boiled at 175° C., and had the characteristic odour and taste of ordinary valerianic acid, it had not the slightest action upon the polarized ray.

The active alcohol, when treated with oxidizing agents, evolved abundance of carbonic anhydride, and produced a large amount of acetic acid. The acid boiled at 170° C., and had the same disagreeable taste and smell as the inactive acid; when tested with a ray of polarized light, it gave a right hand rotation of 43 degrees in a tube 50 centimetres long.

The above experiments indicate either that the non-rotating valerianic acid of Wurtz had been made, as suggested by Frankland and Duppa, from a non-rotating sample of amylic alcohol, or that the acid made from the mixed alcohols had been allowed to remain in contact with the oxidizing mixture sufficiently long to destroy the whole of the less stable rotating acid.

ESTIMATION OF SULPHUR IN COAL GAS.

Mr. Wm. Valentine, in a communication to the *Chemical News*, takes exception to the modes in use for estimating this important impurity. Although he says that Dr. Letheby's process is the best published, he also states that it does not comply with the requirements of a *quantitative test for sulphur*. In fact, that it never tells, even approximately, how much sulphur is in the gas. Dr. Letheby's arrangement entails a loss varying from three-fourths to four-fifths of the bisulphide of carbon in the gas. Mr. Valentine's arrangement consists of meters for measuring the gas and air (the latter being mixed in slight excess), and passing them through a tube in a combustion furnace; the tube contains spongy platinum, by this means the whole of the sulphur compounds are oxidized into sulphuric acid, which is estimated in the ordinary manner. The sulphuric acid being collected in a flask containing soda.

FREEZING OF WATER AND BISMUTH.

It has been received as a conclusive fact, that water presented an exception to the general rule of contraction with the abstraction of heat. Professor Tyndall, in his work entitled "Heat considered as a Mode of Motion," when speaking of the apomalous expansion of water prior to solidification and the importance of this property in the economy of nature, controverts the generally received opinion, that no other bodies possess this property, and cites bismuth as another exception. If melted bismuth was poured into an iron bottle, and the latter was closed with an iron screw—the metal on cooling expands sufficiently to burst the bottle. "There are no fish here to be saved," says Professor Tyndall, still the molten bismuth acts exactly as the water acts. Mr. Alfred Tribe controverts the conclusions of Professor Tyndall, and says the above experiment shows conclusively that molten or fluid bismuth expands either on cooling or freezing, but it affords little or no proof of that which has been inferred from it.

From experiments made with bismuth, paraffin, potassium, and sodium salts, it would appear that their solidification always commenced from the bottom. In every experiment made with water it commenced at the top. It therefore appears as a rule that substances solidify upwards, water being the exception. It is certain that bismuth follows the rule whether water be the only exception or not.

As soon as a liquid begins to cool, its temperature ceases to be uniform. The necessary consequence of this must be a difference in the specific gravity of the different particles, which will arrange themselves accordingly. After a short time the denser particles will be found at the bottom, and as solidification begins there, the conclusion may be drawn that the point of greatest *density coincides with that of solidification*, and it stands to reason, that the particles which solidify first are the coldest. It may be concluded from this, that molten bismuth on cooling down does not expand before freezing, as is the case with water, but that it continues to contract down to the solidifying point. The rapid expansion, which is well-known to all chemists, is due to the act of crystallizing. The reason why the metal does not rise to the surface as soon as it becomes solid, although specifically lighter, is simply because it adheres to the bottom and sides of the vessel. Hence the analogy of bismuth and water is not perfect, and fails just in that point which causes our rivers and lakes to freeze from the surface, and thus to protect animal life.

FORMATION OF OXALIC ACID FROM CARBONIC ACID.

This very important reaction has been effected by Dr. Dreschsel. When a mixture of pure sodium and recently ignited sand is heated in a flask imbedded in a small sand-bath to the temperature of boiling mercury, while a rapid stream of dry carbonic acid gas is continually passed through the vessel, the sodium becomes converted into a dark-coloured pulverulent mass, which is found to contain oxalate of sodium.

Sixty grains of sodium yielded six grains of oxalate of lime.

Potassium-amalgam absorbs carbonic acid gas at the boiling point of mercury even more energetically, and yields a somewhat considerable quantity of oxalic acid.

DETECTION OF KREATININE IN URINE.

M. Roussin proposes the use of bichloride of mercury for the detection of kreatinine in urine. Kreatinine is precipitated from its solution by the mercurial salt.

ELECTRICITY AND THE CHOLERA.

An Italian savant (Father Denza) has been studying the condition of the atmosphere during the prevalence of the cholera in Turin. During August and September, when the cholera was at its height, the amount of ozone present was variable, but about the average. The electricity, however, during these months almost entirely disappeared. This is a curious observation and one difficult to account for.

ON VANADIUM AND ITS COMPOUNDS.

The metal vanadium was discovered by Sefström in Swedish bar-iron. Even when using many pounds of the iron, only minute quantities of the substance could be procured. In the present day the vanadium compounds must be reckoned amongst the greatest chemical rarities, and they are quoted in the price-lists of chemical dealers at £35 per ounce. Sefström handed over his preparations to Berzelius, to whom we owe almost all our acquaintance with the chemistry of vanadium, except in one instance, when doubt was thrown upon Berzelius' researches.

Prof. Roscoe came into possession of a plentiful source of this rare substance, and therefore devoted his time to investigate the experiments of M. Berzelius. He described them at an evening meeting of the Royal Institution.

Berzelius came to the conclusion that the most characteristic feature of this substance is the existence of an acid-forming oxide, termed vanadic acid, produced whenever the oxides are heated

in the air. He also discovered two other oxides of vanadium; also a chloride. The atomic weight of the metal Berzelius said was 68·5. He came to this conclusion from the following experimentally-ascertained facts:—1. That on passing hydrogen over heated vanadic acid, a constant loss of weight occurred, and the sub-oxide was formed. 2. That when dry chlorine was passed over the suboxide thus prepared, the volatile chloride was formed, and a residue of vanadic acid remained, which was exactly equal in weight to one-third of the acid originally taken for reduction.

Hence, assuming that the lowest oxide contains one atom of oxygen (an assumption borne out by the analysis of the chloride), the acid must contain three atoms of oxygen; and the following formula represents the composition of these compounds, according to Berzelius:—

$VO \quad VO_2 \quad VO_3 \quad VCl_3 \quad (V = 68{\cdot}5)$.

Oxides——————— Chloride—

From observations of Rammelberg in 1856, the mineral vanadinite was added to a list of isomorphous minerals, all of which minerals had an analogous composition.

Apatite $3\,(Ca_3\,P_2\,O_8) + Ca\,Fl_2$

Pyromorphite $3\,(Pb_3\,P_2\,O_8) + Pb\,Cl_2$

Mimetesite $3\,(Pb_3\,As_2\,O_8) + Pb\,Cl_2$

As before said, vanadinite was isomorphous with the above. So far, indeed, has the identity of crystalline form been traced that crystals have been found which at one end consisted of vanadinite, and at the other pyromorphite. A formula to agree, however, with the above minerals would require an oxide of vanadium agreeing with the corresponding oxides of phosphorus and arsenic (V_2O_5). This would not, however, agree with Berzelius' formula.

Prof. Roscoe has, however, proved that the substance supposed by Berzelius to be vanadium ($V = 68{\cdot}5$) is not the metal, but an oxide, and that the true atomic weight is $68{\cdot}5 - 16 = 52{\cdot}5$ (according to the author's exact determination by experiment, 51·3).

Thus, the true composition of the vanadium compounds are as follows:—

$V = 51{\cdot}3.V_2O_2 \;—\; V_2O_3 \;—\; V_2O_4 \;—\; V_2O_5 \;—\; VO\,Cl_3$

Dioxide. Trioxide. Tetroxide. Pentoxide. Oxytrichloride.

Each of these four oxides have been obtained, the dioxide being a grey metallic substance.

Solid oxychlorides are obtainable, one of which resembles mosaic gold, possesses a bright metallic bronze-like lustre, and has been taken for the metal by Schafarik. The metal itself has not been obtained.[1]

Vanadium is the fourth substance supposed by their respective discoverers to be metals, which has on investigation within the last few years been shown to be a compound body.

CULTIVATION OF JALAP IN ENGLAND.

Mr. Hanbury stated at the Pharmaceutical Society that a plant of jalap which had been left in the ground all the winter and thrived, had produced six large tubers and twenty-four small ones. He (Mr. Hanbury) was of opinion that it grew better in the open air than under glass. Unfortunately, however, the flowering was too late for the seed to ripen. There is little doubt that this important medicinal plant might be cultivated with success in Europe.

EXTRAORDINARY MINERAL WATER FROM JAMAICA.

Prof. Attfield has analysed this water, and finds it to contain 2493¼ grains of mineral matter to the gallon, viz:—

Chloride of Calcium	1510
Chloride of Sodium	981
Chloride of Ammonium	2·43

So that a gallon contains 3½ ounces of chloride of calcium. The proportion of chloride of calcium is unprecedented. The negroes believed in it as a cure for every disorder, but it was chiefly used for scrofulous affections, glandular swellings, &c. The author quoted from Pereira's statement of the therapeutic action of chloride of calcium, which shows that it is most useful in those diseases for which the negroes have recourse to the medicinal water.

PRESERVATION OF ANIMAL FOOD.

Of all the numerous patents that seem at all successful,[2] Messrs. Medlock and Bailey's promises the most fairly. It is well spoken of by those that have tried it, and it seems daily growing into favour. Mr. W. H. Scott read a long paper at the Society of Arts on the Preservation of Animal Food, when he pointed out the great importance of the question.

Speaking of the consumption food, he says that there is available for the use of the British Isles less than two ounces of meat per diem (including bone and fat) per head of the population. As each person should consume on an average not less than ten ounces per diem, it is evident that the meat supply is perfectly inadequate, and the corollary follows that if this amount of animal food be necessary to the maintenance of the constitution, we are actually in a state of social starvation. The importance of the preservation of food becomes therefore of more vital importance from day to day.

The antiseptic class of preservatives of animal food seem the most successful, and the author of the above-named paper includes under this head those methods which depend upon the addition of some substance, which, by a simple property known as catalysis, prevents or arrests oxidation or putrefaction by its mere presence, undergoing no change in itself, or but very little. To a greater or less extent salt, sugar, creosote, carbolic acid, &c., possess this property, and are constantly employed for this purpose, either separately or as mixtures. The numerous applications of "cured" or "salted" meats are well known. They are wonderfully improved, if, after salting, they are submitted to the influence of wood or peat smoke, during which process a minute quantity of acetic acid and creosote is absorbed.

Sulphurous acid has frequently been employed alone for the preservation of meat, but has failed in all instances from its volatile nature, causing it to be dissipated too soon to be of any real protection. Messrs. Medlock and Bailey's patent consists in the use of bisulphite of lime. The neutral sulphite of lime is only slightly soluble in water, and its antiseptic properties are not so well marked as those of the bisulphite, which contains double the amount of sulphurous acid, is perfectly soluble, and when oxydized is merely converted into sulphate of lime. The author gave analyses of beef, mutton, veal, and pork, both before and after treating with the bisulphite process, to show that the constituents of the flesh were very little changed. He said that in this preparation he believed we had a means of converting to our use the enormous meat stores of Australia and South America, and that he looked forward with confidence to seeing beef and mutton imported for sale at 2½ to 3 pence per pound, and of a quality equal to any we can procure.

ON THE DECOMPOSITION OF SYRUPUS FERRI IODIDI.

Dr. E. Squibb (*American Journal of Pharmacy*, March) recommends the addition of a solution of hyposulphite of soda to discoloured syrup of iodide of iron. He used a solution of 15 to 20 grains of crystallized hyposulphite to the ounce of water—from 15 to 20 minims of this solution are sufficient for a pint of the syrup, when the latter is not very discoloured. He says that syrup so restored is afterwards much less susceptible to change, and the writer suggests that the addition of a minute proportion of hyposulphite of soda to fresh syrup, will probably secure it against change.

CHLORATES OF CINCHONA ALKALOIDS.

M. C. Lewis Diehl, in the *American Journal of Pharmacy*, writes upon this subject. He commences by giving "Tichborne's process for preparing chlorate of quinia, and Bottger's process for preparing the chlorates of barium. The latter process of M. Bottger is not the only one by which this salt is manufactured. It has been commercially manufactured and used within the last two years in England and France, and we have no doubt that it will soon find its way to America. Its principal use is for pyrotechnic purposes, but its great advantages for the preparations of the other chlorates and the oxychloric acids are so evident, that it will no doubt soon become an important commercial salt.

Mr. C. Diehl describes a bichlorate of quinia, obtained by decomposing bisulphate of quiniæ with chlorate of baryta. When placed upon heated platinum foil it immediately explodes with great violence. It has not, however, been obtained in crystals.

Chlorate of quinidia may be formed in a similar manner to the quinine salt. It crystallized quite distinctly from that salt, however, viz.—in forming solid tubular crystals which were entirely derived from the rhombic system.

Ferrocyanate of quinia the author makes by boiling two

1 A specimen having a bright metallic lustre was shown at the Paris Exhibition; but this must of course have been Berzelius' protoxide.—Ed. S.

2 There have been some hundreds of patents taken out for the preservation of food.

parts sulphate of quinia with three parts ferrocyanide of potassium in a little water, to pour off the liquor from a greenish-yellow substance, which, after cooling, is dissolvent in alcohol. If the alcoholic solution is evaporated to dryness on a water bath, with the aid of heat, a greenish-yellow powder remains, but if the solution is allowed to evaporate spontaneously, the result is a light yellow substance. Pelonze found the green substance to be a mixture of quinia and Prussian blue, but, says the writer, it would be difficult to see how a mixture of quinine and Prussian blue would form a light-yellow compound. It is therefore probable that the ferrocyanate of potassium is a definite compound, which is decomposed by heat.

Literature.

THE STOMACH AND DUODENUM.[1]

We hold it to be one of the best signs of our day as regards the future of medicine, that there are so many able and earnest labourers at work in the field of observation and research, and among them all we know none more meritorious than Dr. Fenwick. The amount of patient questioning of nature, of which this volume contains the results, can scarcely be appreciated except by those who have had some experience of similar labours. The philosophic medical inquirer who goes to the fountain-head for information, works often at great disadvantage compared to others. A chemist or physicist can lay his plans for experimentation, collect his materials, and when all is ready, proceed at his convenience, and with undivided attention, to the investigation he has in hand. Not so the pathologist; the opportunity for observation comes, he knows not when, very likely at a time when his hands are full of urgent business, and his energies are called away from the exercise of accurate research and reflection, to efforts to relieve human suffering as best he may. The informing idea of Dr. Fenwick's inquiries has been to trace the relations of morbid changes in the stomach and intestines, not only to the functions of the organs themselves, but especially to the disorders and textural lesions of other parts. The condition of the stomach in fevers, in diseases of the heart, in diabetes, in hepatic disorders, in phthisis, renal disease, and in delirium tremens, forms the subject of several chapters devoted to these subjects. Besides these there are chapters on acute, subacute, and chronic gastritis, on weak digestion, on dilatation of the stomach, and on ulceration. An appendix contains the results of some statistical inquiries into various causal conditions, productive, or supposed to be productive, of dyspepsia. The influence of smoking, of alcoholic drinks, of deficiency and excess of animal food, of imperfect mastication, of anxiety of mind, of age, and of hereditary transmission is thus inquired into. As to the last, it appears that a tendency to infirmity of the digestive organs is very often transmitted. Out of those liable to dyspepsia, 45 per cent. were the offspring of parents who had suffered from the same disorders, but of the healthy only 12 per cent. gave the same history. Smokers may find comfort in Dr. Fenwick's figures, for although he set out with the preconceived opinion that the habit was noxious to digestion, he found himself compelled, by the evidence of facts, to modify his view. The teetotallers will, perhaps, be surprised to learn that among dyspeptics 45 per cent. of those examined were total abstainers, while among the non-dyspeptic there were only 19 per cent. of their creed. Dr. Fenwick, however, while entertaining no doubt as to the beneficial effect of malt liquors, especially in females, writes wisely and well, that "it is far wiser to suffer any amount of dyspepsia than to subject oneself to the innumerable evils resulting from drunkenness." This applies to persons who are unable to be temperate. In all the chapters treating of the subjects above-mentioned, the reader will find valuable and often original information, and it is plainly impossible for us in these narrow limits to do more than notice some of the points which have most arrested our attention. Dr. Fenwick recommends auscultatory percussion as the best means for determining the space occupied by the stomach. The cup-shaped end of a Camman's stethoscope is placed over the viscus, while the observer listens to the sound produced while the surface is smartly tapped with the fingers. The shock of the tap is felt directly in the ears, and continues to be as long as the stethoscope is placed over the stomach. By this proceeding the limits of the organ can be ascertained, and may be marked on the surface with ink. We are glad to see that Dr. Fenwick restores gout to its former position as a cause of gastritis, which some have recently refused to it; there can be no reason, to our thinking, why lithates circulating in the blood should not irritate the gastric quite as much as the bronchial mucous membrane, which is notoriously prone to be thus affected. He gives an interesting communication from that excellent observer, Dr. Marston, as to the occurrence of acute gastro-duodenitis in consequence of pyæmic, malarial, or uræmic poisoning. We should like to have had Dr. Fenwick's opinion as to the use of opium in cases of gastritis from poisoning, attended as they mostly are with great prostration. Might not opium lessen the depression if given in properly adjusted doses?

We have perused the section on the state of the stomach and intestines in phthisis with interest, hoping that the searching scrutiny to which the organs had been subjected, might have shed some light on the origin of this yet most obscure malady. The riddle, however, is not yet solved. Dr. Fenwick comes to the conclusion "that neither in man nor in the lower animals are there any anatomical changes in the stomach or in the upper part of the intestinal canal *peculiar* to phthisis." Yet his own inquiries strongly corroborate those of previous observers, which have tended to show that it is not improbable that tubercle may result from an imperfect action of the organs of digestion. In 100 out of 200 cases there had been a distaste for fat previous to the commencement of the phthisis, and other forms of dyspepsia had prevailed in others. The author dwells somewhat particularly on the predominance of gastric symptoms in certain cases of phthisis, and his statements on the subject are well worthy of perusal. The following passage sums up his views relative to the genesis of tubercle:—"It appears to me that the chief cause leading to the actual production of tubercle is an activity of growth in the tissues disproportioned to the amount of healthy nutriment presented to them. In the normal condition the power of the digestive organs is regulated by the requirements of the system; hence the keen appetite and the rapid absorption of the young. But if the growth of the body progresses more quickly than the digestion can supply a sufficient quantity of properly constituted material, then matter of an inferior organization will be taken up and employed in nutrition, and disease must be the result"—p. 207. Anything which hinders the due formation of reparative material may act in this way as a cause of phthisis.

The chapter on the connection between affections of the brain and the digestive organs, embracing what is sometimes termed "nervous dyspepsia" betokens evidently the experienced and skilled physician. Dilatation of the stomach is the subject of another very interesting chapter. The diagnosis of this condition, at an early period, is very desirable, because at this time degeneration of the muscular coat is not so far advanced as to make all attempts to repair the mischief fruitless. Dr. Fenwick recommends in doubtful cases to induce vomiting early in the morning, and to examine the ejecta with a view to ascertain whether a considerable quantity of the food taken on the previous day has been retained in the stomach or no. If this is the case, and the vomited matters contain torulæ and sarcinæ in numbers, there can be little doubt as to the existence of some impediment to the transmission of food from the stomach. He does not, however, mention a proceeding which was proposed some years ago by an enthusiastic Frenchman, who affirmed the practicability of passing a sound down the œsophagus and *through the pyloric orifice* of the stomach! The dilatation is held by our author to be the "fons et origo mali," and he does not think that an effectual cure is accomplished by remedies which only have for their object to arrest fermentation, such as the sulphites. Ulcers of the stomach are grouped by Dr. Fenwick under several heads, this being, he considers, the most likely means of arriving at correct conclusions. He distinguishes—1. Sloughing ulcers caused by debility; 2. Ulcers accompanying passive congestion from disease of the heart or liver: 3. Ulcers induced by inflammation; 4. Chronic ulcers, of which he says, that in nearly every case which he has examined with the microscope, the blood vessels have been diseased. We are glad to find this able physician feels the same difficulty which we have so often felt ourselves—viz., that of pronouncing a positive opinion as to the existence or not of chronic ulcer of the stomach. For aid in this matter, he offers some suggestions. If, in a doubtful case, the shape of the stomach is evi-

1 The Morbid States of the Stomach and Duodenum, and their relation to the Diseases of other Organs. By S. Fenwick, M.D. London: John Churchill and Sons.

dently altered, or its size enlarged, or if portions of detached pancreatic tissue are found in the stools, some material evidence is thereby obtained.

Our space is exhausted, but not the list of topics to which we might invite the attention of our readers. We are sure they will agree with us in regarding this volume as a standing proof of the industry and intelligence of the author, and of the high rank he deserves to hold among the scientific physicians of present and past time.

This work,[1] written by an eminent German physician, has a three-fold object. First, to remove from the minds of patients the exaggerations and the causeless alarms many of them entertain, in regard to the nature and consequences of their maladies. Secondly, to afford such correct and clear information in respect to the symptoms of the various forms of debilities treated of, as will enable them to distinguish between the imaginary and the real. And, thirdly, to withdraw their treatment from the domain of empirics and empiricism, and place it on a basis of common sense and scientific medicine. The author appears to have fully investigated these causes, and we have therefore much pleasure in recommending this work to the attention of that portion of the profession interested in the subjects on which it treats.

Dr. Wynn Williams explains in a pamphlet of 23 pages[2] his plan of treating cancer of the uterus by the application of bromine.

Dr. Collins[3] weaves into a little *brochure*, all the prejudices and all the fears that have been uttered in respect to vaccination. He can scarcely expect that his opinion will over-ride that of the whole profession, and we think he can only look for approval to such one-sided persons as Sir J. Jervoise, whose performances in the House of Commons resemble those of Dr. Collins in print. There is a certain liveliness in Dr. Collins's style, and a touch of grim humour in his telling how he sent in his essay to compete for the prize offered by the Ladies' Sanitary Association, but confesses he had little hope of attaining it, when he heard that "two rabid vaccinators" (sic.) had been appointed adjudicators.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 20, 1868.

PROFESSIONAL EDUCATION.

AT the distribution of prizes at University College last week, Mr. BRUCE as chairman, gave a very able address, in which he adopted, to a large extent, the views on medical education put forth by Mr. SIMON, and which we have already noticed. Mr. BRUCE said not long ago he read a statement made by that gentleman, of whose honesty and purity of motives he could confidently speak, to the effect that any person might enter the Medical Profession by the mere fact of his having obtained a knowledge of one branch of the profession only. He might pass a surgical examination and be admitted to practice in medicine. There were 577 practitioners holding only the diploma of Apothecaries' Hall, which did not imply of necessity any knowledge of surgery, or any adequate knowledge of anatomy; and out of a total of 20,000 practitioners upwards of 5000 were not qualified by law to practise more than one department of their profession. Another statement met with by the Chairman was that in the year 1866 or 1867, in the registration list under the Medical Act, there were 345 diplomas of membership of the Royal College of Surgeons, 191 licences of the Apothecaries' Company, but only 12 degrees derived from the University of London. He said we were the only people in Europe—certainly the only great nation—that admitted to the medical profession gentlemen who had only passed an examination in one branch of that profession. And what was the result? It was this—that in the year 1866 the Army Board had before it 14 candidates who were members of the Royal College of Surgeons, and that four of them failed to pass the re-examination, or, as it was called at the Universities, were "plucked." What happened to another batch of gentlemen who presented themselves for examination at the Navy Board? There were six candidates who were members of the Royal College, and their fate (arranging them in the order of merit) was this:—No. 1 passed "good," but he had failed twice before; No. 2 passed "indifferent, and deficient in anatomy;" No. 3 rejected, "ignorant of anatomy and surgery;" No. 4 rejected, "ignorant of anatomy and surgery;" No. 5 rejected, "ignorant of anatomy, surgery, and practice of medicine;" No. 6 rejected, "ignorant in all branches."

Mr. BRUCE further remarked that in Germany a similar condition of things prevailed until admission to the universities was made to depend on the passing of a severe examination, and he seemed to think that the only way of improving the state of medical education was to enforce a stringent preliminary examination.

It is undeniable that the student who brings to the work of learning the art of medicine a sound general education must make a more rapid advance (and his work must be by that much more agreeable) than he who has to toil his way painfully through subjects with which he should be familiar.

There are plenty of preliminary examinations recognized by the Council—any one of which would, we believe, be found enough for ordinary purposes. The worst of it is the want of uniformity in the requirements of the several bodies. It seems a great pity that this preliminary education should not be let alone altogether by medical corporations, for passing at one of these is no use for any other purpose, whereas an examination by the Universities, the natural bodies to which to commit this duty, would bring the students into relation with these institutions, and frequently lead to there graduating where they had matriculated.

This is a point of very great interest, and one to which we intend shortly to return, for to the disgrace of the Medical Council, be it said, the student is bewildered by the hundred-and-one paths he is at liberty to choose from to enter the profession, and the thousand-and-one regulations which are to guide him along any of those devious paths he may select.

Mr. BRUCE then coupled sanitary reform with the improvement of medical education, and professed himself

1 On True and False Spermatorrhœa. Translated from the German of Professor Pickford, of the University of Heidelberg. Seventh Edition. London: H. Bailliere, Regent-street.

2 Cancer of the Uterus and other parts. By A. Wynn Williams, M.D. London: Henry Renshaw. 1868.

3 Have you been Vaccinated, and what Protection is it against Small-pox? By J. Collins, M.D. London: H. K. Lewis. 1868.

ready to work for both. He bore his testimony to the labours of the profession in every kind of good work, and called upon the young men he addressed, and who were about to commence an honourable career, while their first aim would naturally be to attain to a high place in their profession, not to forget that it was their duty as citizens to take part in those improvements in the sanitary condition of the people which up to this time the medical profession had cultivated more than any other portion of the community.

ST. THOMAS'S HOSPITAL.

The foundation stone of the new hospital has been "well and duly" laid by the Queen, amidst the enthusiastic plaudits of a brilliant assemblage, who delighted to welcome back the Sovereign to public life. We have not space to describe the brilliant scene, nor to reprint the formal addresses, but we take the opportunity of noticing some of the most interesting points suggested by the event. The origin of this Royal charity dates back to 1213, when the Prior of Bermondsye founded an Alms-house. This, in 1539, was purchased by the City of London, and became one of the five royal foundations. It grew and prospered, and many are now in practice who received their education within its walls. It is but recently that the Charing-cross Railway purchased the buildings for £296,000, and so rendered it necessary to obtain a new site. We have no intention of reviving the controversy as to the fitness of the site selected at Stangate—on a piece of land reclaimed from the Thames in making the Southern Embankment. Nearly facing the Houses of Parliament, the new hospital will be an ornament to London, and a blessing to the densely-populated district around.

The foundations of the new buildings seem to be solid enough—a depth of concrete varying from 5 feet to 26 feet in thickness. It is believed that there need be no fear of the patients suffering from offensive effluvia from the river, since the quantity of deposit exposed at low tide must be very small, now that the main drainage system may be said to be carried out, besides which the river is now a comparatively narrow channel, bordered on each side by granite walls of great thickness. It has taken a year to construct these foundations, and the cost is estimated to be at least £40,000.

The hospital will be built on the pavilion principle, and consist of eight blocks. The first block, the nearest to Westminster Bridge, will be devoted to administrative purposes. The second and third blocks will be for the Nightingale Training Institution. The several pavilions are 125 feet from each other. The medical school will be separated by a still wider interval, and museum, library, lecture rooms, and anatomical theatre are all duly provided for.

The wards will occupy the six central pavilions, which will all be built on the same plan. Each pavilion will be a distinct hospital with its kitchens, laundry, and other appurtenances. Each ward will run the whole width of the building, and be 120 feet long by 28 wide, giving a cubic space of 1800 feet for each patient. This, though it seems large, will not be too much when it is remembered that the hospital admits cases of the greatest danger, and is likely to have all its beds constantly occupied. The windows will be between the beds, and at those facing the river there will be balconies, where some of the patients may in fine weather enjoy the fresh air and the fine scene. Contagious diseases will be disposed of differently. The block devoted to them is to have a central staircase, and there will here be two wards on each floor.

Thus, St. Thomas's Hospital will enter on a new chapter of its long and honourable history with all the appliances that science can suggest for carrying on its great work. It can scarcely fail to prove a lasting benefit to the Metropolis, and as a charity and a medical school, its future seems secure. It was well for the Queen to venture from her long retirement to inaugurate so noble a work, one which, as Her Majesty's reply to the address remarked, "naturally attracted the attention" of her "beloved husband whose heart and mind were ever interested in institutions of so beneficial a character," but one which happily is not alone in its great object of alleviating human pain.

THE LORD MAYOR OF DUBLIN.

On the 14th instant, a deputation from the Corporation of Dublin, headed by the Lord Mayor, was introduced to the Royal presence at Windsor Castle, and presented a loyal address, congratulating her Majesty on the escape of H.R.H. the Duke of Edinburgh from the hand of a Fenian assassin at the antipodes.

The *Court Circular* proceeds to say that "Her Majesty received the address, and returned a gracious answer. The Lord Mayor of Dublin was then presented to her Majesty by the Lord Chamberlain, and received the honour of knighthood."

As the Lord Mayor of Dublin is a member of our own profession, we take this opportunity of congratulating him on his recently-acquired honour; and in doing so we believe we only express the general feeling of the community when we say that the presentation of the honour of knighthood to Dr. Carroll will be received with feelings of satisfaction as the just reward of irreproachable conduct and princely hospitality in his official position. During the late visit of H.R.H. the Prince of Wales to Dublin, Dr. Carroll well sustained the traditional high position of the Lord Mayor of Dublin; and his honorary distinction obtained for this reason may well be compared with similar honours granted, as they often are, to reward the aristocratic toady, and the time-serving political place-hunter.

THE DUBLIN MAGISTRACY.

His Excellency, the Lord Lieutenant of Ireland, has recently appointed Dr. George B. Owens, of Kildare-street, Dublin, to the Commission of the Peace for the County of the City of Dublin. We congratulate Dr. Owens on his appointment to the magistracy; and we do this *ex animo*, because few men in our profession have done more to serve the substantial interests of its underpaid members than he has. As a well-known and zealous Poor-law Guardian for several years, Dr. Owens has always been found on the side of true liberality to the sick poor; and it is in a great measure due to his unceasing efforts, that the professional position of our brethren, the Union and Dispensary Medical Officers of Dublin, has been materially improved of late years.

Notes on Current Topics.

The Public Health.

We find in the return by the Registrar-General, for the week ending Saturday May 9, both fewer births and fewer deaths in London, and 13 other large towns of the United Kingdom. The numbers were 4805 births, and 2903 deaths—24 per 1000 being the annual rate of mortality, distributed in the following proportions:—22 London,

Edinburgh, and Leeds ; 30 Glasgow ; 28 Manchester ; 26 Dublin and Bristol ; 25 Liverpool and Bradford ; 24 Salford ; 23 Sheffield ; 20 Birmingham and Newcastle-on-Tyne ; and 19 Hull. The deaths registered in London were less by 37 than the estimated number.

The deaths from zymotic diseases were 286 ; 17 deaths from small-pox, 55 from measles, 28 from scarlatina, 5 from diphtheria, 69 from whooping-cough, 38 from fever, and 19 from diarrhœa were registered.

Two hundred and six deaths occurred from phthisis, 106 from bronchitis, 63 from pneumonia, 58 from diseases of the heart, and 175 from diseases of the brain and nervous system.

Five children and two adults died from burns or scalds ; 6 persons from drowning ; 7 infants from suffocation ; 9 persons committed suicide, and 8 were killed in the streets by horses or carriages.

Health of Manchester.

Everyone who has noticed the periodical health returns of the United Kingdom, must have been struck with the high rate of mortality constantly reported of this important city. It is satisfactory, therefore, to receive the first sanitary report of Mr. Leigh, who has recently been appointed medical officer of health. It appears that diseases of the respiratory organs which are fatal enough everywhere, are much more so in Manchester than in most other towns. This may be accounted for in great measure from atmospheric conditions. "Ozone is never found in the air, and the normal condition of the working-man of middle age in this city is bronchitic." Infectious diseases, also, which are often brought into the city by persons who have contracted them elsewhere, destroy large numbers, from the habit of the poor, who, when a disease prevails, thoughtlessly visit their friends and neighbours who are ill, and, consequently, carry home and spread the infection. Very thoughtlessly too, in a vast many cases, they take their children with them as well, and hence it may not be surprising that one-half of the deaths occur among children under five years of age. As many as 16,549 persons died of infectious diseases in Manchester and Charlton, in the ten years 1851-61, and in the seven years 1861-7, in the same districts, including Ardwick, there were 10,443 fatal cases from such diseases, exclusive of those occurring in private practice. What may be the sanitary condition of the districts, there are no particulars to show; but no doubt an investigation will be commenced without further delay than is necessary. The first step Mr. Leigh advises is to take immediate and decisive measures to reduce the death-rate from infectious diseases, by preventing persons afflicted with them from conveying the disease through injudicious intercourse, and by the isolation of the infected sick. This, of course, will involve the necessity of largely increased hospital accommodation, but to what extent cannot at present be ascertained. He invites his friends at the union hospitals to furnish him with facts which may help him to form an accurate judgment on the point. His observations on the subject of infant mortality he will present in a subsequent report. Meanwhile we may hope that the efforts he is making will be followed by marked and beneficial results.

University of London.

Lord Granville, as Chancellor of this University, delivered a very able address at the convocation last week. We regret not having space for a full report of the speech, but many of our readers will, we doubt not, have perused it in the daily papers. His Lordship spoke strongly in favour of the education of females, although he was against mixing them up with young men in their proposed examinations—a reservation which, we think, will commend itself to the major part of the public.

The Chancellor touched also upon the medical importance of the university, and on its recent acquisition of the right to send a representative to Parliament.

In reference to this last subject, we may add that at this convocation the Registrar gave the following figures as the result of the work of the University since its foundation:—Candidates passed matriculation, 5779 ; B.A., first examination, 911 ; second examination, 1458 ; M.A., 172 ; B.Sc. first examination, 94 ; second, 75 ; D. of Sc. 9 ; B.L., first examination, 16 ; second, 193 ; D.L., 22 ; B.M., preliminary scientific examination, 362 ; first examination, 785 ; second examination, 525 ; M.D., 261 ; B.S., 8.

The British Orphan Asylum.

This Society was first established at Clapham-rise, but in order to receive an increased number of residents, it was removed to Slough, where more commodious premises were obtained. These were opened by His Royal Highness, the Prince of Wales, in June 1863, on which occasion it was announced that a donation of £14,000 was presented to the charity by Mr. Edward Mackenzie, of Fawley-Court. This gave a renewed impetus to the undertaking, and the new buildings were completed four years ago. The institution was founded for the gratuitous reception and education of orphans of both sexes, and all denominations whose parents were once prosperous and lived in any part of the British Empire. There are the children of clergymen, naval and military officers, solicitors, merchants, and highly respectable traders, amounting in all to 108 boys and 67 girls. Many pupils have regained the position in society which, by the death of their natural protectors, they had lost. The 42nd anniversary was held on the 11th of the present month, at the City Terminus Hotel, Cannon-street. The Bishop of Ripon presided, and made a powerful appeal to the rich to support the charity which was greatly in need of pecuniary help. There was a large attendance, and upwards of £1000 were subscribed. The children walked round the room, and a selection of vocal music was performed.

The Aged and Infirm Wards of the Saint Marylebone Workhouse.

New wards have been erected for the purpose of relieving the over-crowded state of the house, and providing more suitable accommodation for the aged and infirm. Of the 1800 inmates at present in Marylebone Workhouse, nearly 1000 are over 60 years of age, and it is for infirm women, whose ages are between 70 and 90, that these wards are provided. The Guardians of St. Marylebone are anxious that their aged poor should be made as comfortable as the rules of a Workhouse will permit. A special dietary is provided for them; the helpless are taken out into the parks in fine weather in Bath-chairs, and all who have relatives or friends have liberal permission to see them, either in or out of the Workhouse.

The care bestowed on these unfortunate people does great credit to the Guardians, and their design has been ably fulfilled by the architect of these buildings—Mr. H.

S. Snell, of 36, Chancery-lane. The builders are Messrs. Manley and Rogers. The ventilating, warming, and sanitary works were confided to Messrs. Potter and Sons.

Royal Medical Benevolent College.

The 15th annual festival of this Institution, founded by the late Mr. Propert, was held last Wednesday evening. Lord Granville presided, and made a noble appeal on behalf of this excellent institution. Subscriptions to the amount of £800 were announced. No institution deserves more hearty support by the profession and the public.

St. Bartholomew's Hospital, London.

What is called the annual "view" dinner of this hospital, took place last Wednesday evening, under the Presidency of the Prince of Wales, who had been present in the morning of the same day at the laying of the foundation stone of new St. Thomas's Hospital, by the Queen. Royalty may therefore be said to have lent abundant countenance to hospital work during the week. This "view dinner" derives its name from the custom long observed by many governors of visiting the wards in the afternoon, a custom which the Prince, who is President of the Hospital, observed by visiting six of the wards before dinner. The usual preliminary toasts having been duly honoured, H.R.H., as President, gave the toast of the evening—"Prosperity to St. Bartholomew's Hospital, and Health and Ease to the Patients." In doing so, the Royal President said :—

"It gives me the greatest pleasure to propose this toast. This hospital, the largest and most ancient of the metropolitan hospitals, was founded in 1123 by Rahere, and was then attached to the Priory ; and on the suppression of the monasteries, in 1544, it had a charter granted to it by Henry VIII., whose portrait occupies the wall on my right. At that time the hospital had only 100 beds, one physician, and three surgeons ; it has now 650 beds, 12 physicians, and 12 surgeons, besides an array of lecturers, dispensers, and other officers. We may regard this as a grand day, and those who have gone through the wards of the hospital will have found everything in good order ; but I once took the officers by surprise, and I came here, in the winter, practically without giving notice. I can assure you I found everything on that occasion in the same condition as to-day—nurses and attendants in their places, and surgeons and physicians punctiliously discharging their duties. I may here advert to the terrible event which occurred in the winter—the Clerkenwell explosion. That showed how well-organized the hospital is, and how admirable its arrangements are adapted to such an emergency. Almost immediately after the explosion as many as 40 patients were safely housed in the hospital, while many had their wounds dressed and were sent away. I came here, and found that the sufferers were receiving every possible attention. Much is, no doubt, due to the unremitting care and supervision of the treasurer ; and if one of the surgeons, Mr. Holden, were not present, I would express my appreciation of his valuable services in terms which, I am sure, many in this room would be ready to endorse. Every one is satisfied of the thorough efficiency of the hospital ; but there is still wanting a convalescent hospital. True, there is the Samaritan Fund, out of which you aid patients when they are dismissed ; but still, when they are nearly well, you wish to send them into the country to recruit their health, so that they may return to their homes thoroughly convalescent. When this question is mooted I shall take the greatest interest, and do all I can to promote the establishment of the additional hospital. I have the greatest pleasure in coupling with this toast the name of the treasurer, and no one will more heartily drink his health than I shall. He has been called upon to act as Treasurer to Christ's Hospital too, and, although he will conscientiously serve it, he will not forget his first love—St. Bartholomew's."

The Treasurer, in the course of his response, mentioned that the income of the hospital was last year exceeded by £4000, that at the time of the Clerkenwell explosion he was prepared, if necessary, to turn the dining-room into a ward, and that a plan was on foot to establish, in conjunction with the Merchant Taylor's Company, a convalescent hospital at an expense of £45,000 for each corporation. He also condemned the taxation of charities.

The next toast proposed by the Royal President was the "Medical Staff," mentioning the names of Dr. F. Farre and Mr. Paget, to the latter of whom H.R.H. tendered public thanks for his care of the Princess of Wales in her late illness.

Dr. Frederick Farre and Mr. Paget responded in suitable terms, after which the "Corporation of London" having been given and responded to, the proceedings were brought to a close.

Edinburgh University.

We alluded last week to the report that a strong party is desirous of conferring the Principalship on some one outside the Medical Faculty. We believe that the candidate favoured by this party is a metaphysician of certain celebrity, at present in India. Could anything be more preposterous ?

Here is Sir J. Y. Simpson, whose discoveries and renown are world-wide, resident in the Modern Athens, and himself one of its greatest lions. The University too, that has so long derived its importance from the Medical Faculty ! Why should not that Faculty receive its just recognition in the person of its head ? Sir James Simpson would confer honour on the University as its Principal.

Mr. Whitworth's Scholarships.

We referred in a previous number of our journal, to Mr. Whitworth's proposed endowment of scholarships for promoting mechanical science. From the documents presented by him to the Lords of the Committee of Council on Education, we copy some of the details which will explain more fully the object he has in view, and the methods of carrying it into effect.

He offers to found 30 scholarships of the annual value of £100 each, to be applied for the further instruction of young men, natives of the United Kingdom, selected by open competition for their intelligence and proficiency in the theory and practice of mechanics and its cognate sciences, with a view to the promotion of engineering and mechanical industry in this country.

These scholarships are to be open to all of Her Majesty's subjects, whether of the United Kingdom, India, or the Colonies, who are not above 26 years of age, and ten are to be competed for and awarded in May, 1869. The candidates must be of sound bodily constitution, and in order to obtain a scholarship must show a satisfactory knowledge of all the following theoretical subjects :—1. Elementary mathematics. 2. Elementary mechanics. 3. Practical plane and descriptive geometry and freehand drawing. With the power to use one or more of the following classes of tools :—*a*, the axe ; *b*, the saw and plane ; *c*, the hammer and chisel ; *d*, the file ; *e*, the forge.

As some time must elapse before this scheme can come into complete operation, he proposes at once to establish 60 preparatory exhibitions of £25 each for youths under 22 years of age, who must undertake to compete for the £100 scholarships, in May, next year, and to place them at the absolute disposal of the governing bodies of the following educational institutions and towns :—

Eight exhibitions to Owen College, and two to the Grammar School, Manchester, the seat of my workshops; three University of Oxford; three University of Cambridge; three University of London; and one to each of the following Universites, Colleges, and Public Schools:— University of Durham, University of Dublin, University of Edinburgh, Watt Institution, Edinburgh; University of Glasgow, Andersonian University, Glasgow; University of St. Andrews, University of Aberdeen, to each of the Queen's Colleges at Belfast, Cork, Galway, Ireland; King's College, London; University College, London; Eton, Harrow, Rugby, Charterhouse, Westminster, Winchester, St. Paul's, London; Merchant Taylors, Christ's Hospital, City of London; Shrewsbury, Marlborough, Cheltenham, Chester, Clifton, Brighton, Liverpool, two to the College of Preceptors, three to the Science and Art Department. The following Exhibitions to be given to artisans only:—Three to the Society of Arts; also one for artisans to each of the following towns:— Birmingham, Bristol, Swansea, and Cardiff, Halifax or Huddersfield, Leeds, Northampton, Sheffield, and if there be any of the above unapplied, they may be given by the Science and Art Department to any other scholastic institution which makes satisfactory arrangements for affording instruction in mathematics and mechanics, freehand and mechanical drawing.

The Lords of the Committee of Council have expressed the great pleasure they shall have "in acceding to Mr Whitworth's request, and giving every assistance in their power in carrying out his patriotic munificence."

St. Thomas's Hospital.

The event of the past week was the laying by the Queen, in semi-state, the foundation stone of the new buildings for this hospital.

The principal objection to the site has been removed by the construction of the embankment upon which the hospital will be erected. Facing the Houses of Parliament, it will be a conspicuous ornament of the river bank.

The construction of the buildings, fronting the Thames on the west, and the gardens of the Archi-episcopal Palace of Lambeth on the east, secure a pleasant view and abundant air for the inmates.

We have only to obtain the removal of the objectionable manufactories in the immediate neighbourhood—bone crushing, potteries, tallow, and size works, &c., to secure a salubrious atmosphere.

The "Lambeth fog" is so well-known, and so offensive to all who have occasion to attend the Houses of Parliament, that we may *hope* they will be made to follow the gas-works, which have been removed elsewhere.

The Medico-Political Association and the Poor-law Medical Officers.

The vigorous efforts made by the Medico-Political Association to improve the condition of the profession, have been fully related in our columns. It will not, therefore, surprise our readers to hear that this Association has determined to take up the cause of the Poor-law medical officers. Last Friday afternoon the executive of the Medico-Political Association held a meeting, to which Dr. Rogers and other gentlemen who have laboured in the cause of Poor-law reform, were invited. The meeting became, therefore, a conference between the Association on the one hand, and the representatives of the Poor-law medical officers on the other. The aggregate meeting of London and Provincial Poor-law Medical Officers announced by Dr. Rogers was brought under discussion, and it was felt that it would be of greater importance were other members of the Profession to take part in it. Accordingly, after a prolonged conference, it was resolved unanimously that the meeting of London and Provincial Poor-law Medical Officers, proposed by Dr. Rogers, be held under the auspices of the Medico-Political Association.

Dr. Rogers and two other gentlemen were thereupon deputed to co-operate with the executive of the Association by forming a joint committee to conduct the meeting, which will be convened for an early date.

The Mecca Pilgrims.

Some anxiety has been expressed lest the crowds of pilgrims this year should meet with our troops returning from Abyssinia, and expose them to the danger of infection. We are glad, therefore, to state that hitherto there has appeared no sufficient cause for this apprehension. The *Patrie*, after reminding its readers that early in April seven vessels, coming from Djeddah, and having on board a large number of Mahommedan pilgrims, arrived at Suez, states, upon the authority of letters from Trieste, dated the 4th inst., that these pilgrims, who belonged for the most part to Bosnia and the Herzegovina, had reached that port from Alexandria. It has been established by the sanitary authorities, after the most careful investigation, that the health of these travellers is excellent, that there has been this year no epidemic disease at Mecca, and that two only of the pilgrims died during the voyage in the Red Sea. The ages of these persons were respectively 87 and 92, and their deaths are attributed to the fatigues of the journey.

Quarterly Return of the Registrar-General.

This important document was forwarded to us some days ago, and we intended to give in our last week's issue an analysis of the particulars it contained, but the press of other matters compelled us reluctantly to postpone it until to-day. The features are such as cannot fail to strike every one who feels any interest in the sanitary condition of the country. The recorded natural increase of the population in the United Kingdom during the three months ending the 31st March, was 102,084. The corrected death-rate of the quarter for the whole kingdom is 2231 per cent. It differs little from that of England and Wales, which is 2234 per cent. The average of the corresponding quarters of the previous ten years is 2576 per cent. The deaths registered in England alone, in the quarter, were 120,095, being 14,000 less than in the same quarter last year. In London the deaths registered were 18,144, being 2323 less than in the winter quarter of 1867, and a lower rate of mortality than that of any other of the twelve large towns of the United Kingdom.

Many reasons might have led to the expectation of an increased death-rate, especially in London. The commercial world had not been relieved of its difficulties, trade in general was by no means good, consequently numbers were out of employment, and most were badly paid. The price of bread and other necessaries augmented greatly the distress of the poor, and hence the increase of pauperism both in-door and out-door in the quarter, as compared even with 1867. And yet, notwithstanding all these apparently unfavourable circumstances, the death-rate was considerably below the average of the same quarter of the ten preceding years. The Registrar-General accounts for this satisfactory bearing of the public health, partly from the favourable state of the weather. "February," he says, "was more like a spring than a winter month, and exercised its beneficial influence on the public health. Easterly winds were of less frequent oc-

currence both in February and March than is usual in those months, and the mean temperature at Greenwich was above the average of 97 years, in each of the three months." Again, he says, "Fever and diseases that attack the juvenile population were less prevalent, or where they prevailed were probably less fatal than usual in many districts that in other seasons had suffered from their ravages." And lastly, the improved sanitary measures which have been adopted and carried out, not only in London, but more or less throughout the kingdom, have doubtless tended very materially to prevent the access of disease, and in nearly all localities to lessen its ravages. The result of these, and, probably, other less evident causes, was "a singularly low mortality."

"In London the deaths from small-pox in the last quarter were 280 against 526 in the same period of 1867; those from measles 452 against 239, from scarlatina 368 against 339; from diphtheria 119 against 102; from whooping-cough 734 against 906; from typhus 514 against 565; from phthisis 2184 against 2369; from bronchitis 2282 against 3144; from pneumonia 1035 against 1150."

There are instances given in the report of violent and fatal attacks of disease traced to contaminated water, and the neglect of other sanitary precautions.

Granular Preparations of Iron with Quinine and Strychnine.

Among the various new remedies brought under our notice by the active pharmaciens of the present day, we have seen two granular preparations which are deserving the notice of the profession. The medicines we here allude to are the granular effervescing citrate of iron with strychnine, and also the citrate of quinine with iron and strychnine.

These salts, to look at, are precisely similar, the granules are perfectly clean, white, and dry, and one teaspoonful of either salt rapidly effervesces when stirred up in cold water, while, at the same time, its solution is complete, and a pleasant draught results.

The proportion of strychnine in ℥j. is gr. 1·32, and of quinine gr. j.

As far as we have yet tried these two medicines, we are able to say that they agree well with a delicate stomach, and the quinine preparation is certainly of decided value in ordinary facial neuralgia, giving very speedy and permanent relief. It seems that the solutions, if allowed to stand, rapidly change, become of a yellowish tinge, and then have an unpleasant highly chalybeate taste, but taken as directed, in effervescence, the flavour is very agreeable.

Vaccinomania.

However we may be disposed to pity and forgive the very numerous class of pathymongers who digest and relish any nonsense in the form of quackery, simply because it is new and not true, we cannot regard as leniently the folly of persons who persist in knocking their vacuous heads against the plainest and most forcible facts, and talking mischievous nonsense when the opportunity of correcting their false judgment is afforded to them. In the whole domain of science there is not a fact more simply and convincingly provable than the efficacy of vaccination in preventing the ravages of small-pox. Theory suggests it, and experience, which cannot err, proves it; and no man whom Providence has spared that form of lunacy known as vaccinomania entertains a doubt on the subject.

If Sir J. C. Jervoise, who bores the House of Commons with his ideas or want of ideas on the subject, is ignorant, he should read; but he certainly has no right to obtrude upon the public his indisposition to correct his want of information, or his blindness to the commonest facts and figures.

On the last day of February the number of London paupers relieved reached 156,650.

The Government have appointed a Commission composed of the Marquis of Kildare, the Rev. Dr. Haughton, Fellow of Trinity College; the Very Rev. Dr. Russell, President of Maynooth; Colonel Laffan, Royal Engineers; Mr. G. A. Hamilton, Secretary to the Treasury; Professor Huxley, F.R.S.; and Captain Donnelly, Royal Engineers, with a view of constituting a separate Department of Science and Art for Ireland, analogous in its constitution to the existing Science and Art Department in London, and of amalgamating as far as possible all existing institutions in Ireland receiving State grants for science or art, and to report on the best means of carrying out this object.

The Gresham Lectures will in future be given at 7 in the evening. The lectures on medicine for this term, by Dr. Thompson, the Gresham Professor, are on May 25th, on the Causes of Disease, illustrated with chemical and physiological experiments; May 26th, Diagnosis; and May 27th, Treatment of Disease.

Another case of a ballet girl's dress catching fire during her performance has occurred, and yet the process of rendering the dresses non-inflammable is still neglected.

The Richardson Testimonial is to be presented this afternoon, at 2·30 P.M., at Willis's Rooms.

The Statham Defence Fund has been paid over to Mr. S. The amount was £329, 15s. 6d.

Dr. Alfred Wiltshire has been appointed a Medical Inspector to the Privy Council.

Next Tuesday there is a conversazione at the Pharmaceutical Society.

We regret to hear that small-pox prevails at Dartmouth.

The fund for the new buildings of the University of Glasgow has reached £106,000.

UNIVERSITY OF LONDON.

On the 13th inst. a meeting of the Chancellor, Vice-Chancellor, and Fellows of this University was held for the admission of successful candidates to degrees. Lord Granville (Chancellor of the University) presided, and there were present many members of the Senate, ladies and gentlemen, the relatives and friends of those who were about to receive degrees, medals, and prizes, also assembled in large numbers.

The Registrar (Dr. Carpenter) read a report stating the number of candidates admitted as graduates and undergraduates during the past academical year.

The graduates who had passed the examinations for the degrees were then presented by the several Professors, and the Chancellor, as he admitted them, delivered to them their diplomas.

We have only space for the names of those in the medical faculty:—

M.D.—John Thomas Arlidge, King's College; Stephen Wooton Bushell, Guy's Hospital; Henry Carnley, Hull and East Riding; Thomas Marsden Edwards, Andersonian Institution; Henry Isaac Fotherby, Guy's Hospital; Ralph Gooding, King's College; George Wallington Grabham, St. Thomas's Hospital; John Pearson Hughes, University College

Charles Kelly, King's College; Henry Colley March, St. Thomas's Hospital; Frederick Barham Nunneley, University College; John Jones Philips, Guy's Hospital; George Henry Savage, Guy's Hospital; Thomas Claye Shaw, King's College; Paul Henry Stokoe, Guy's Hospital; John Williams, University College.

M.B.—Charles Edward Squarey, University College; Joseph Groves, King's College; Edward William Berridge and William James Garrett, St. Bartholomew's Hospital; Oliver Thomas Duke and Henry Morris, Guy's Hospital; Herbert Ray Archer, St. George's Hospital; John Durham Bird, R. Manchester School of Medicine; John Lloyd, Edward Mackey, and William Thomas, Queen's College, Birmingham.

B. Sur.—Edward William Berridge, St. Bartholomew's Hospital.

Those graduates who passed with honours were next presented, and received their certificates:—

M.B.—Marcus Beck, University College, 1st in medicine (scholarship and medal), 3rd. *(æq.)* in midwifery, 4th *(æq.)* in forensic medicine; George Ralph Raine, Guy's Hospital, 2nd in medicine (medal), 2nd in midwifery (medal), 2nd in forensic medicine; John Wickham Legg, University College, 5th in medicine; Charles Berrell, King's College, 6th in medicine, 6th in midwifery, 4th *(æq.)* in forensic medicine; John Cavafy, St. George's Hospital, 7th *(æq.)* in medicine; Henry Franklin Parsons, St. Mary's Hospital, 7th *(æq.)* in medicine, 7th in midwifery; James Sawyer, Queen's College, Birmingham, 11th in medicine; Robert Shingleton Smith, King's College, 1st in midwifery (scholarship and medal), 3rd in medicine; John Reuben Bathurst Dove, London Hospital, 3rd *(æq.)* in midwifery, 7th *(æq.)* in medicine, 3rd in forensic medicine; George Hunt Orton, St. Bartholomew's Hospital, 5th in midwifery, 7th (*æq.*) in medicine; Paul Henry Stokoe, Guy's Hospital, 1st in forensic medicine (scholarship and medal), 4th in medicine, 8th in midwifery.

B.S.—Henry Greenway Howse, Guy's Hospital, 1st in surgery (scholarship and medal); Marcus Beck, University College, 2nd in surgery (medal); John Reuben Bathurst Dove, London Hospital, 3rd in surgery.

Each graduate, to whom a scholarship, medal, or prize had been awarded was next presented.

M.D.—Charles Kelly, King's College, (medal).

M.B.—Marcus Beck, University College, scholarship and medal in medicine; Georgh Ralph Raine, Guy's Hospital, medal in medicine; Robert Shingleton Smith, King's College, scholarship and medal in midwifery; George Ralph Raine, Guy's Hospital, medal in midwifery; Paul Henry Stokoe, Guy's Hospital, scholarship and medal in forensic medicine.

B.S.—Henry Greenway Howse, Guy's Hospital, scholarship and medal in surgery; Marcus Beck, University College, medal in surgery.

The Registrar then read a list of the Undergraduates who had obtained honours:—

FIRST EXAMINATION.

M.B.—Richard Lawton Roberts, University College, exhibition and medal in anatomy; William Richard Gowers, University College, medal in anatomy; John Davies Thomas, University College, exhibition and medal in organic chymistry and materia medica and pharmaceutical chymistry; Richard Lawton Roberts, University College, medal in organic chymistry and materia medica and pharmaceutical chymistry.

Proceedings of Societies.

MEDICAL SOCIETY OF LONDON.

MAY 4TH, 1868.

Dr. RICHARDSON, F.R.S., President, in the Chair.

THE PRESIDENT related a "Case of Fatal Railway Accident," illustrating important points in physiology and medical jurisprudence. He was present at the time when a cry was raised that a person had been decapitated by a passing train; he found at once that complete severance *without the loss of any blood* had occurred just above the level of the shoulders. On discovering the trunk, though at least a minute had elapsed, respiratory movements were observed, and the right side of the heart still pulsated. On proceeding down the line the face was found warm, and with the appearance of life; the irides were faintly contracted to light; then the brain was found entire, perfectly enucleated. Its examination revealed indications of old-standing lesion, which gave rise to the hypothesis of insanity—a hypothesis which was substantiated by the evidence at the inquest.

After some remarks by Dr. DAY,

Deputy Inspector-General BURKE said he was once present at decapitation at Canton. Examining the severed head he saw violent contractions of the muscles below the jaws, which continued for at least twenty minutes.

Dr. LEARED thought that the respiratory movements observed might have been automatic, just as those which occur in the hearts of the lower animals after removal from the organism.

Dr. SEDGWICK made some interesting observations on the results of freezing portions of the brain, particularly showing that section or paralysis of the phrenics will allow the recurrence of respiratory and cardiac acts previously arrested.

Dr. W. H. DAY read a paper "On some points connected with the present aspect of Medicine, and on the existing state of Therapeutics." Though advocating much caution in the reception and promulgation of medical opinions, he deprecated the scepticism which is so rife in the present day. One great reason leading to the support of false theories has been the uncertain utterance of practitioners as to the value of medicines. He illustrated the disbelief concerning the value of mercury by facts attesting its influence for good; and, as an illustration of the causative relation between drugs and recovery from disease, or its manifestations, pointed to opium. He spoke of fashion in therapeutic methods, and instanced the rapid rise and quiet subsidence of opinion respecting the Turkish bath, which, though not a universal remedy, is a useful one. He thought that if physicians adopted a uniform method of research, science would be more directly advanced.

In the active discussion which followed,

Mr. DE MERIC instanced the expectant treatment as now applied to pneumonia and to diseases of the eye—the panacea in the latter case being the instillation of atropine. Present day-surgeons scarcely knew how to bleed. Conservative surgery had shot beyond the mark, and preserved limbs which had the demerit of being useless. Of remedies enthusiastically received but which could not stand the test of time, he thought Lister's artiseplus would form a part.

Dr. LEARED thought he erred in placing therapeutics second to pathology; and Mr. HUNT considered the former to be at its lowest ebb.

Dr. TILBURY FOX and Dr. SYMES THOMPSON were not dissatisfied with the present state of therapeutics, which the latter thought was now beginning to stand on a firm philosophic basis.

Dr. SANSOM considered that the present age had contributed much to the establishment of such a foundation. Among the many bases were the adoption of a supporting plan of treatment—the establishment of hygienic and sanitary measures, which reduced the virulence of type in disease, and diminished the foci of dissemination—the employment of the universal method in investigation—the experimental analysis of the effects of drugs in the normal economy—(Dr. John Harley)—the physico-chemical investigations and deductions of Dr. Bence Jones, and the antiseptic treatment introduced by Professor Polli.

Dr. MEREDYTH considered the absorption and elimination of drugs as questions requiring elucidation.

The PRESIDENT said that the "Expectant Treatment" was one of the heresies of Albrotus, coeval with that of "similia similibus curantur." The age for the advance of therapeutics was now approaching, and it was right that pathology should have had the precedence in point of time.

Dr. DAY, in the course of his reply, quoted some instances of the good effects of bleeding.

SURGICAL SOCIETY OF IRELAND.

APRIL 24TH, 1868.

Dr. ADAMS, President of the College, in the Chair.

MR. H. G. CROLY read the following paper on

WOUNDS OF ARTERIES IN THE VICINITY OF THE WRIST AND FOOT, ILLUSTRATED BY SIX CASES.

Mr. President—Accidental wounds of the arteries in the vicinity of the wrist, palm of the hand, and sole of the foot are of frequent occurrence in consequence of the exposed position of the blood-vessels in those regions. The hæmorrhage is

often alarming, owing to the free anastomosis of the blood-vessels, and may threaten life if not arrested with promptitude. The following quotation from the surgical writings of John Bell in his able article on wounds of the arteries near the wrist, renders any apology on my part unnecessary in bringing the subject under the notice of the Surgical Society this evening:—

"If I do not mistake the importance of this accident, it is a sort of duty to explain it to you still further; for, though the operation of tying the radial or ulnar artery does not range in the catalogue of important operations, along with the trepan and amputation; yet, if I be not deceived, it is more difficult than either, and certainly more frequently required."

WOUND OF THE LEFT RADIAL ARTERY HALF AN INCH ABOVE THE WRIST-JOINT: LIGATURE OF THE VESSEL: RECOVERY.

Case 1.—A. B., aged 56 years, a slater, was working on the roof of a stable when portion of the rotten wood-work gave way, he fell through the roof to the ground and was stunned; he was conveyed at once to the City of Dublin Hospital. I saw him immediately after his admission, and observed an incised wound running obliquely across the course of the left radial artery about half-an-inch above the wrist-joint. The brachial artery was at once compressed, and the patient carried up to bed in the accident ward. By proper treatment he soon recovered from the effects of the "stunning." The pressure having been taken off the main artery the blood at once came *per saltum*, which proved that the radial artery was wounded. The wound having been dried with a sponge I observed an oval *slit* in the radial artery nearly a quarter of an inch in length (evidently produced by a broken slate), and in order to secure the vessel above and below the wound I found it necessary to open on a director upwards and downwards the fascia which covers the vessel. The artery was then detached, and a bent eye-probe passed beneath it, armed with a double ligature; the probe having been withdrawn, and the loop divided, the two ligatures were separated, and the artery tied above and below the *slit*. The edges of the wound were approximated with strips of adhesive plaster, and a roller bandage applied; the hand was placed upon a pillow.

The ligatures came away in the usual time, and the man left the hospital in a few days, the wound being perfectly healed.

WOUND OF THE PLANTAR ARCH: LIGATURE OF THE POSTERIOR TIBIAL ARTERY: RECOVERY.

Case 2.—J. W., aged 22 years, a ship-carpenter, in dealing a blow on a piece of timber, the "adze" slipped and struck him in the sole of the foot, cutting through his boot and inflicting a severe wound five inches in length. Bright blood flowed freely from the wound. A handkerchief was wrapped around his foot, and he was conveyed at once to the City of Dublin Hospital.

On his admission, the resident pupils made pressure on the main artery, in consequence of the alarming hæmorrhage, and applied a compress of lint to the wound and a roller bandage.

I was immediately sent for, and having removed the compresses, which were stained with bright blood, I sponged out the wound, but could not see any bleeding-vessel, as the wound was very deep.

I plugged the wound with lint steeped in turpentine, and applied compresses, a roller bandage firmly from the toes, and placed a pad over the posterior tibial artery in the calcaneo-malleolar space, and another over the anterior tibial artery. The limb was elevated. In a few seconds (the pressure having been taken off the femoral artery) the blood flowed freely from the wound.

I now proceeded to tie the posterior tibial artery behind the inner ankle, as follows:—A semilunar incision was made about two and a-half inches in length a "thumb's-breadth" behind the internal malleolus; the three layers of fascia were divided on a director, and the artery detached from its veins and secured with a ligature. Pressure was then taken off the femoral artery, and not a drop of blood escaped from the wound, which was sponged out, and its edges gently approximated with strips of adhesive plaister. Opium was prescribed.

The ligature separated on the fifth day. The wound in the sole of the foot healed up soon, and the man was discharged from hospital.

WOUND OF THE RIGHT ULNAR ARTERY AND NERVE.

Case 3.—J. P., aged 17 years, was working on the roof of a house, helping a plumber. His foot slipped and his leg went through a skylight. He put out his right hand to save himself from falling, and received a severe wound from a broken pane of glass across the wrist. The wound was semilunar. The blood "spouted" from his wrist. A handkerchief was tied tightly around the wound, and he was conveyed at once to the City of Dublin Hospital.

On admission pressure was applied to the brachial artery, and on examination I ascertained that the ulnar artery and nerve were completely divided.

I secured the upper end of the artery without difficulty; but the *distal* end retracted beneath the fascia, which I divided on a director, and was thus enabled to secure it. The edges of the wound were brought together with iron wire sutures, a compress of lint applied, wadding-cotton wrapped around the hand, and a roller bandage. The patient was placed in bed, and an opiate administered.

He complained of great pain and numbness in the little finger and half of the ring on the following day.

On the fifth day the ligature came off the cardda end, and on the eighth day from the *distal*.

On the fourteenth day the patient was discharged from hospital, the wound having healed.

He presented himself amongst the extern patients in a fortnight subsequently, and said that sensation had returned to the ring finger, but not to the little finger.

A month after the accident he came to the hospital, and I found his little finger swollen, and a large bullæ filled with pus and serum on its posterior aspect, which I opened and ordered to be poulticed.

The case progressed favourably afterwards, but sensation did not return to the little finger.

GUNSHOT WOUND OF THE PALM OF THE HAND AND WRIST—WOUND OF PALMAR ARCH—ULNAR ARTERY AND MEDIAN NERVE—RECOVERY WITH A USEFUL HAND.

Case 4.—M. F., æt. 17 years, page to a gentleman near Dublin, was out shooting; the gun, which was loaded heavily with simple shot, burst into pieces, causing a severe wound of the palm of the hand, wrist, and lower part of the forearm. The hæmorrhage, which was profuse and arterial was controlled by pressure applied to the brachial artery and hand—the patient was sent to the City of Dublin Hospital. I saw him almost immediately after his admission, and noted the case, as follows:—

Patient partially collapsed, and suffering intense pain. On removing the temporary dressings, I observed an extensive lacerated wound extending from the junction of the lower to the middle third of forearm to the centre of the palm of the hand. The muscles protruded, and several divided tendons were hanging loosely. The anterior annular ligament was completely severed, the median nerve divided, and the radial and ulnar arteries were exposed. I examined the wound carefully in order to ascertain if any wadding or portion of the gun had entered, but could not find either. The patient was placed in bed in the accident ward, and took a stimulant and full opiate. When pressure was removed from the brachial artery, several branches of the palmar arch bled. I tied them, and having sponged out all clots from the wound, proceeded to make careful pressure in the palm in the following manner—small bits of lint steeped in the muriated tincture of iron were applied into the bottom of the wound, and then larger pieces over them, so as to make a graduated compress; the surrounding part of the palm was filled with flat compresses to prevent blood being extravasated beneath the palmar aponeurosis; before proceeding further, I was obliged to amputate the ungual phalanx of the *little* finger which was comminuted. I next applied the gantlet bandage (of "Genga"), and placed compresses on the *dorsal* interosseous spaces, to prevent the perforating arteries keeping up hæmorrhage by supplying the palmar arch.

The fingers were next *flexed* on the palm, and fixed in that position with a view of relaxing the palmar fascia, which, if on the stretch, would tend to keep open the mouths of the vessels. I observed a slit in the ulnar artery, about two inches above the wrist, and secured it by passing an acupressure needle under it (carefully avoiding the ulnar nerve), and a loop of inelastic iron wire over it: all hæmorrhage was thus fully arrested. Compresses were applied to the radial and ulnar arteries, and a roller bandage evenly adjusted to the bend of the elbow; another roller was placed transversly in the anticubital fossa, and the forearm flexed on the arm; the battle-door splint, carefully padded, was applied to the hand and forearm to give support.

The anti-tetanic pills of the late Mr. Robert Moore Peile, were prescribed as follows :—

℞ Aloës hepaticæ.
Pulv. antimonialis, aa. gr. xij.
Opii pulverizati, gr. iij.
Syrupi simplicis, q.s.
Ut fiant pil : xij. equales.
ij. ter die sumendæ.

In addition to the anti-tetanic pills, a full opiate was administered each night ; the patient took ice, beef-tea, and wine.

The acupressure pin was carefully withdrawn on the third day without any disturbance of the bandages ; there was no return of the bleeding, and the wound healed gradually ; the boy remained nearly three months in hospital, and was discharged with a useful hand ; he is now able to attend table and drive. I now exhibit to the Society, a photograph of the boy, showing his hand, and I also exhibit the *gun* itself.

COMPOUND COMMINUTED FRACTURE OF THE METACARPAL BONES OF THE LEFT THUMB AND FOREFINGER, WITH WOUND OF THE RADIAL ARTERY, CAUSED BY A CIRCULAR SAW : HÆMORRHAGE ARRESTED BY ACUPRESSURE : WOUND DRESSED WITH CARBOLIC ACID : RECOVERY, WITH A USEFUL HAND.

Case 5.—E. D., aged 70 years, a boatman, incautiously put is hand under a circular saw to pull out shavings. The saw caught his hand, and almost completely severed his thumb and forefinger. He was conveyed to the City of Dublin Hospital, and I saw him at once on admission, as I happened to be in attendance on the engine-driver and stoker of the train who were injured by the serious accident at Bray Head.

On examination I observed his thumb and forefinger lying in the palm of the hand, being held merely by the integument in front, with flexor tendons. A fearful wound presented itself, extending from the palm or side of the ball of the thumb to the dorsal surface of the second metacarpal bone. Arterial blood flowed freely. When pressure was taken off the main artery, which an assistant had charge of, I sponged out the wound and tied several small muscular branches of the radial artery. The main vessel was wounded deeply in the interval between the thumb and index-finger, where it dips into from the deep palmar arch, and was secured by passing a long acupressure pin, slightly curved, under it, and a loop of inelastic iron wire over it.

When the hæmorrhage was controlled I proceeded to examine the fractured metacarpal bones. That of the thumb was fractured obliquely in two places at its centre. I placed the ends in apposition, and having moulded accurately a gutta-percha splint and padded it, I fixed the thumb in a good position.

The metacarpal bone of the index-finger was also comminuted, and I was obliged to remove one loose piece of the bone. The first finger was strapped to the second to give support, and the hand was placed on a battle-door splint, carefully padded to fit the palm.

Carbolic acid dressing was applied to the wound before the bleeding occurred. The anti-tetanic pills were prescribed, and a liberal allowance of wine, beef-tea, and ice.

The acupressure pin was removed in a couple of days. The wound redressed with carbolic acid. The patient had not a single bad symptom, and said he suffered no pain whatever from after his hand was dressed. He was discharged from hospital in six weeks, and attended as an extern patient to have his hand dressed. He is now able to oppose the thumb and forefinger, and make good use of his hand.

I exhibit to the society a photograph of the patient and his hand.

GUNSHOT WOUND OF THE THUMB : AMPUTATION AT THE METACARPO-PHALANGEAL ARTICULATION : RECOVERY.

Case 6.—C. H., aged 25 years, groom to a nobleman near the city, was out shooting. He placed his thumb on the top of one of the barrels of the gun. The breech was on the ground. From some unexplained cause the gun went off, the shot carrying away the ungual phalanx of his right thumb. He lost a considerable quantity of blood, and was conveyed to the City of Dublin Hospital.

On examination I found the ungual phalanx hanging loosely. The bone of the second phalanx was shot away, and attached to the ungual phalanx only by integument.

I made a flap of the sound integument, and covered the head of the metacarpal bone. The vessels were acupressed, and the wound dressed with carbolic acid. The anti-tetanic pills were prescribed, and a full opiate administered.

The patient suffered considerably from pain at the arm for the first few days. The wound gradually healed, and no bad symptom occurred. He was discharged from hospital.

The photograph which I exhibit shows well the stump after recovery.

Dr. FLEMING observed that the ingredients of the anti-tetanic pill, as mentioned by Dr. Croly, were correct ; but the proportions were not those which he had been in the habit of using. Instead of antimonial powder, tartar emetic was generally used if the individual was strong and healthy ; but if he were old or asthenic, then the antimonial powder was used. The pills were only used in those cases where the wound was such as rendered it not unlikely that tetanus might occur. They were constantly had recourse to in cases of critical and serious operations. The usual dose in which he had administered opium was a quarter of a grain ; tartar emetic, one-eighth of a grain; and a quantity of aloes. One ingredient, he was glad to see, was omitted, and that was calomel, which he had often heard noted, as if it were one of the original ingredients of this pill. The cases brought forward by Mr. Croly were of extreme interest, and had been very successful indeed. All surgeons knew that injuries of the thumb, of the sole of the foot, and in the vicinity of the ankle-joint—injuries involving any of the vessels—were very frequently followed by inflammation of a semi-diffused character ; and after the deligation of arteries in these special localities, it was very likely that some inflammation would intervene, of a more or less diffuse character. It was fortunate that such a contingency did not happen in any of the interesting cases brought forward by Mr. Croly. He had alluded to some cases described by Mr. Bell. It was a long time since he (Dr. Fleming) had read the title of these cases ; but he had recently met with a book in which a number of those cases of wounds involving the radial arteries, the palmar arteries, and the ulnar arteries, and accompanied by very profuse hæmorrhage, were described—viz., "White's Cases in Surgery," published 50 or 60 years ago. The means Mr. White adopted to stop the hæmorrhage, when the wound in the artery lay open before him, was to place a piece of dry sponge in it, and this plan had been adopted with great success.

The PRESIDENT asked, was it a perfectly naked sponge, or covered with anything.

Dr. FLEMING replied that it was a piece of bare sponge, but Mr. White took care to remove it at a particular period.

The PRESIDENT—Do you approve of separating the edges of the wound by thrusting a piece of naked sponge into it, instead of drawing the edges together and using a compress ?

Dr. FLEMING—No.

The PRESIDENT observed that Dr. Croly was for active surgery in these cases, but he in many cases would prefer to follow a different procedure, by first trying the closing of the wound and using pressure, which in many cases will save the necessity of further interference.

Dr. FLEMING said he was an advocate of bringing together the edges of the wound, and some pressure. He was quite opposed to separating the lips of the wound, and to the unnecessary deligation of the arteries, without first having recourse to the ordinary means of pressure.

Dr. EDWARD HAMILTON said there was one important matter which should be borne in mind—namely, the amount of injury to the part from which the hæmorrhage proceeded. If they had a free, open, and exposed wound, with hæmorrhage from that wound, the simplest course for the surgeon was to tie the vessel above and below the wound in it. He thought in other cases, such as wounds in the palm of the hand, arising from simple puncture, when they had sound tissues to deal with around the wound, they should treat them by compression. If, however, they had much laceration it was often difficult to discover the part where the vessel was wounded. When the parts around the wound were injured by contusion they would not bear pressure so well, and they were then obliged to stop the hæmorrhage by tying or twisting the artery.

Dr. CROLY said that Mr. Bell cautioned the surgeon against using the sponge, and mentioned cases where the arm had afterwards to be amputated because of the consequences which arise from the adoption of this method of stopping a hæmorrhage. He should therefore be very careful of using a sponge. In the six cases which he mentioned, the blood was spouting in his face, and he felt it necessary to adopt active surgery, and he was successful. Mr. Bell said that when the artery was tied securely, the surgeon was freed from anxiety, but when closed by other means the hæmorrhage was liable to return. A man came to the City of Dublin Hospital, with a wound by a chisel in the

ulnar artery. The resident pupil put on a compress, and treated him as well as most surgeons would treat him. He saw the man the next day, with his hand in the bandage. He would not stir the bandage, but advised him to stay in the hospital. He refused, however, to do so, and in six days afterwards the wound broke out again. It was then found a very difficult matter. to tie the artery.

(To be continued.)

Correspondence.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND AND ITS CHARTER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The time is fast approaching when the state and condition of our College is to be set forth in the annual report of the Council, and yet no rumour has reached us of any deliberation on the important subject of a new charter. I am the more surprised at this, as a strong feeling exists outside the council chamber, that our present charter has grown obsolete; that under its provisions we have drifted into some remarkable anomalies, and that so long as we are fettered by its restrictions, we will be unable successfully to compete with rival institutions, so quickly cropping up about us. The first of these anomalies is one which I approach with much reserve, and will dismiss very briefly, as anything which I may urge respecting it will naturally be set down to motives of self-interest, I allude to the connection between the College and its school. Some years ago when this subject was discussed by the College at large, we were told that the birth of the school preceded that of the College, and that really the College was an appendage to the School. This state of things may have been admissible in the infancy of surgical science, when the means of teaching surgery were extremely limited, but I question if it is either necessary or expedient, in the present day, that the School should exercise so preponderating an influence in the deliberations and proceedings of the College, or absorb so large an amount of its revenues. The second anomaly to which I would direct attention, is the general arrangement of our Court of Examiners. Under our present charter lecturers in schools—men highly qualified for the office, are excluded from the post of examiners, and thus the body from whom the examiners are chosen is necessarily very limited, and these appointments become vested in a few individuals. Hitherto, no doubt, we have been able from this small body to select a sufficient number of gentlemen of undoubted ability, high professional attainments, and unblemished honour and integrity, but in the event of vacancies I hardly see how their places are to be supplied. In the present condition of affairs this provision of the charter is a glaring absurdity. I take it for granted that the rule was adopted in order that there being no relation of teaching between the examiner and the candidate, the court should be placed on high ground, above even the suspicion of partiality. This rule, however, does not exclude clinical teachers in hospitals from holding office as examiners, and yet we know that the relation between the clinical teacher in an hospital and his pupils, is as intimate (if not more so) as that of a lecturer in a school. We know that the competition for pupils is just as keen among hospitals as it is among schools. We know that it is a part of the tactics of every hospital to obtain a representative on the Court of Examiners, and we know that students regard with special favour those hospitals which possess this advantage, quite apart from any superiority as fields for clinical instruction, and even attend such hospitals for a short term to learn the peculiar views of such examiners. In fact, the simple principle enunciated by this arrangement is this, so long as a man is a clinical teacher in an hospital, he is to be regarded as a man of honour, and impartial as a judge; but the moment he becomes a lecturer in a school, he is at once placed under a ban—he is branded as one not to be trusted, he is no longer capable of discharging without bias the duties of examiner.

Surely such a tissue of incongruity would not have been so long tolerated in any other institution in the world. Again, it is determined by the existing laws that two Members of Council shall preside as assessors at each examination, and so important a part of the examination is this regarded, that two Members of Council called upon to preside, are stimulated to punctuality by the not very liberal fee of 5s. 3d. Now, some of the Members of Council are not only clinical teachers and lecturers in schools, but even *private teachers*, and although ineligible to sit as examiners, they are called upon to discharge duties paramount to those of examiners. It may be said they take no part in the examinations, but they supervise the examiners, and it should be borne in mind that they are the electors of the individual members of the court. What must be the effect on the mind of a candidate as he sits down to be tested at an examination table, presided over by the clinical teacher of a rival hospital—the lecturer in a rival school, nay more, the *private instructor of a rival class*—it must unnerve him, whatever his attainments may be. I am not now putting an imaginary case, I am simply stating what has occurred, and certainly this state of things does not place the court on that high ground contemplated by the charter.

I cannot leave this subject without protesting against the introduction of aliens to conduct the preliminary examinations. The Fellows of the College ought to be, and are fully competent to undertake all the examinations in the College, and are the best judges of the class of preliminary education most suited for the student: if the remuneration were as liberal as it ought to be there would be no lack of Fellows to seek the office. As I dislike anonymous letters, I beg to subscribe myself.—Your obedient servant, EDWARD HAMILTON.

120, Stephen's-green, 1st May, 1868.

"THE RATIONAL TREATMENT OF CONSUMPTION."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I read with pleasure, in your last issue, a paper by Dr. Mulvany, on "The Rational Treatment of Consumption." Without either supporting or denying the correctness of his views, I beg to draw the author's attention to what, to my mind, appears an omission on his part.

Dr. Mulvany commences his paper by saying, "Few of the methods of treatment, are advanced on that of rationality." Now, as an exhaustive work has been written by Dr. H. Mac Cormac, on the so-called "Rational Treatment," I submit, in fairness, it should have been quoted. Dr. Mac Cormac's work, second edition, is written on the same ground of inductive philosophy, guided by the best light of physiological science; and he has urged the value of pure air with a strength, a reiterative force, and a variety of illustration, which I question have ever been matched by any other writer. Dr. Mulvany's physiological conclusions are of immeasurable importance; but he will find in the work referred to, a number of cases bearing out his theory. I would particularly draw the author's attention to the "Fifty aphorisms, illustrating the production of tubercle," at the end of Dr. Mac Cormac's work.—I am, dear sir, yours, &c.,

P. M. RICE.

May 2, 1868.

PHOSPHORIC ACID IN THE TREATMENT OF DIABETES.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

J. W., æt. 20 years, labouring under diabetes, consulted me in April, 1867, stating that he had been in declining health for some months previously. His condition was then as follows:—

Skin hotter than natural, harsh and dry; pulse 89, soft and full; tongue covered with a thick white fur; bowels obstinately costive, the stools being hard and dry; the urine pale, straw-coloured, having an odour of fresh apples, and of 1053 spec. grav.; Moore's and Tromer's tests showed the presence of sugar in considerable quantity; the thirst was excessive. There was great emaciation, especially of the face, the bones of which stood out with great distinctness, the aspect presented the malignant hue of organic disease; the gait was slow, feeble, and even stooped, so that although he was only a youth, he yet reminded one of an old man.

He complained principally of an inordinate and craving appetite, an excessive thirst, and great muscular weakness and debility; so great, indeed, was the debility, that he was scarce able to go up stairs. His appetite was so unsatiable that he was obliged to carry his pockets full of bread and biscuits, as well as eating a substantial meal five times daily; he could not refrain from eating for more than 15 minutes at once, and his thirst was so excessive, that he was compelled to get up three or four times during the night to drink. During the night he frequently drank twelve pints of water, and during the day it

was his custom to place his mouth under a water-tap and allow it to run until his thirst was satiated. The quantity of urine passed daily was about 16 pints, and so frequently was he obliged to pass it, that it had induced irritation of the urethra. The mind was depressed, the power of attention weakened, and the manner irritable and peevish. The sexual power was almost gone. Owing to these symptoms he was unable to follow his employment. The heart's sounds, however, were natural in character and rhythm, and nothing abnormal could be discovered on auscultation or percussion. Prior to my seeing him he had been under treatment, which consisted principally in the administration of bitter tonics, the use of bran bread and claret wine. The improvement, however, was trifling.

I commenced treatment by giving grs. v. of Pulv. Doveri three times a-day; a full dose (grs. 2½) of opium every second or third night; 25 drops of dilute phosphoric acid in a glass of water thrice daily after meals, and 30 drops of tinct. ferri per chlorid. twice daily before meals. Jalap, podophylline, scammony, and castor oil, were each in turn administered as purgatives. Warm clothing, and entire abstinence from alcoholic liquids, were enjoined. Weak beef-tea and mutton-broth were recommended as drink. Under this treatment the improvement became very marked: the urine became less in quantity and of lower specific gravity, so that he was obliged to rise only once during the night to pass water. The weakness became less, and thirst became considerably abated, but the appetite was not changed, it was still excessive, and craving. He became tired of taking medicine, and also of the monotonous diet, which consisted mainly of beef, bran bread, and mutton-broth; he also gave up taking the Dover's powder and tinct. ferri perchlorid., trusting alone to the dilute phosphoric acid, which was now increased to 30, and ultimately to 35, drops for a dose, which latter had still the effect of keeping down the thirst.

As the appetite was still excessive creosote was tried in various combinations, but owing to its nauseous flavour, the patient was unable to persevere in its use; it had therefore to be discontinued. Sulphate of zinc, tannic, and hydrocyanic acids were tried, but they proved valueless. Cod-liver oil was used for a considerable time, and it seemed to do good; it certainly improved the appearance of the patient. Alcoholic drinks of all kinds, even the claret wine, induced a state of feverishness, and invariably increased the thirst; they were therefore strictly forbidden. The patient himself has the greatest confidence in the dilute phosphoric acid, and continues to take it to the neglect of every other remedy. It has so much improved him, that he now only drinks four pints during the day, and is seldom disturbed during the night, either by having to rise to drink or pass water. The appetite is somewhat, but not materially, lessened; the skin is almost natural, and the bowels tolerably regular; the urine is greatly lessened in quantity, and of specific gravity 1039, ranging occasionally to 1042, and the strength strikingly improved. He has been able to follow his employment during the past six months, and is much more cheerful than formerly.

Now, I do not mean to say that phosphoric acid will cure cases of diabetes, but I believe that it is the principal, if not the only agent by which the thirst in diabetes can be materially lessened. I have observed its beneficial effects in two other cases, and I quite concur with the late Dr. Prout, who, I believe, was the first to introduce it to the notice of the profession; that it is of the utmost use in this inveterate disease. As to creosote, I cannot speak definitely, as owing to its disagreeable taste the patient was unable to continue its use sufficiently long. Tincture of perchloride of iron, Dover's powder, and opium, are valuable medicines in this disease, but any one of them used separately will not produce the same beneficial or striking effects of the phosphoric acid. As for tannic acid, sulphate of zinc, and hydrocyanic acid, I have never been able to discover their beneficial effects; but, on the contrary, I think the two former are productive of mischief by increasing the constipation. As for cod-liver oil I would recommend that it should get a fair trial in every case. Perseverance and self-control must be inculcated on every patient, without which success in treatment can never be attained.—I am, sir, yours, &c., J. G. THORNLEY, M.D.

Medical News.

UNIVERSITY COLLEGE, LONDON.—The prizes in the Faculty of Medicine for the winter term of 1867-8 were distributed on the 12th instant, in the presence of a large number of the relatives and friends of the students, the Right Hon. H. A. Bruce, M.P., presiding.

The following prizes were distributed:—

CHYMISTRY (Professor Williamson, Vice-Dean).—Gold medal, E. B. Aveling, of London; 1st silver medal, Sidney Coupland, of Streatham; 2nd silver medal, E. J. Ramsey, of London; certificate—4th, equal, Edward A. Schafer, of Highgate, and Walter Cornelius, of London; 5th, M. A. Tarkadakar, of Bombay; 6th, Edward J. Emanuel, of Southsea; 7th, W. H. Johnson, of London; 8th, W. Ottley, of Pau.

ANATOMY AND PHYSIOLOGY (Professor Sharpey, M.D., F.R.S.)—Gold medal, Rushton Parker, of Liverpool; 1st silver medals, equal, J. H. Mummery, of London, and Charles H. Carter, of London; certificates—4th, E. R. Edger, of Uxbridge; 5th, W. Wynn Westcott, of Martock; 6th, Edwin Rickards, of Lutterworth; 7th, equal, Harry Maule Crookshank, of Cheltenham; Frederick P. Johnson, of Jersey; and Howell Rees, of Maesteg.

ANATOMY (Professor Ellis, Senior Class).—Gold medal, H. N. Martin of Welshpool; 1st silver medal, Alfred Shewen, of Sevenoaks; 2nd silver medal, Rushton Parker; certificates—2nd, Leonard Cane, of Kensington: 3rd, E. R. Edger,; 4th, E. B. Aveling; 5th, J. Magrath, of East Grinstead; 6th, Walter Cornelius.

MEDICINE (Professor J. Russell Reynolds, M.D.)—Gold medal, Tempest Anderson, of York; 1st silver medal, John Bolton, of the Mauritius; 2nd silver medal, E. W. Symes, of London; certificate—4, Charles Wood, of London.

SURGERY (Professor Marshall, F.R.S.)—Gold medal, Tempest Anderson; 1st silver medal, A. J. H. Crespi, of Cheltenham; 2nd silver medal, John Bolton; certificates—4th, equal, William Bishop, of Chipping Norton, and Alfred H. Hackney, of London; 6th, Charles Wood; 7th, William Milligan, of Buxton.

COMPARATIVE ANATOMY (Professor Grant, M.D., F.R.S.)—Gold medal, Alfred H. Carter, of Pemsey; certificates—2nd, E. M. Swanwick, of Manchester; 3rd, E. A. Schafer; 4th, R. N. Godlee, of Upton; 5th, William Hardman, of Blackpool; 6th, William Ottley, of Pau; 7th, J. A. W. Wardale, of Newport; 8th, W. G. Watson, of Sydney.

PRACTICAL PHYSIOLOGY AND HISTOLOGY, Senior Class (Michael Foster, M.D.)—Silver medal, R. T. Smith, of Hebdenbridge; certificates—2nd, J. H. Mummery; 3rd, Rushton Parker; 4th, Charles H. Carter; junior class—certificate, Edward B. Aveling.

FELLOWS' CLINICAL MEDALS.—Senior Class—Gold medal, J. G. E. Bolton; silver medal, John Davies Thomas, of Swansea. Junior class—Silver medal, T. Llewelyn Brown.

PROFESSOR ROSCOE AT APOTHECARIES' HALL.—The third of Professor Roscoe's lectures on Spectrum Analysis was delivered on Saturday afternoon, and illustrated by numerous experiments, which produced enthusiastic applause. The lecturer related the circumstances under which new elements had been discovered by means of spectrum analysis, and paid his tribute of respect to most workers in this field—Talbot, Herschel, Bunsen, Kirchhoff, and others. He then described the history and properties of cæsium, rubidium, thallium, and indium. He exhibited the spectrum of each upon the disc, and after that the spectrum of mineral waters containing some of these elements. A description of the construction of spectroscopes closed this interesting lecture.

SCIENCE AND ART FOR IRELAND.—Her Majesty's Government, with a view of constituting a separate department of science and art for Ireland, analogous in its constitution to the existing Science and Art Department in London, and of amalgamating, as far as possible, all existing institutions in Ireland receiving State grants for science or art, have appointed a Commission to report on the best means of carrying out this object. The Commission will be composed of the following gentlemen:—The Marquis of Kildare, the Rev. Dr. Haughton, Fellow of Trinity College, Dublin; the Very Rev. Dr. Russell, President of Maynooth; Colonel Laffan, Royal Engineers; Mr. G. A. Hamilton, Secretary to the Treasury; Professor Huxley, F.R.S.; and Captain Donnelly, Royal Engineers, who will also act as secretary.

WHOLESALE CIRCUMCISION.—A Constantinople journal announces a circumcision on a great scale as about to take place at Kanelili. The son of Mustapha Fazil Pacha is about to undergo the initiatory rite of his religion, and 500 boys—the children of parents in reduced circumstances—are to be treated to it at his highness's expense. It is computed that the ceremony will last five days, the surgeons being unable to finish off neatly more than one 100 patients a-day; and that it will cost upwards of £5000. Presents are to be made to the parents of the circumcised, and the whole party are to be lodged and fed until their wounds are healed.—*Pall-Mall Gazette.*

DR. JOHN GIBSON FLEMING has been re-elected Representative of the Faculty of Physicians and Surgeons of Glasgow, in the General Medical Council.

THE Fund for the Royal Infirmary of Edinburgh already exceeds £50,000.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 27, 1868.

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Lecture.

THE CANTOR LECTURES AT THE SOCIETY OF ARTS.

Dr. LETHEBY'S

FOURTH LECTURE ON FOOD.

PRESERVATION OF FOOD.—UNWHOLESOME AND ADULTERATED FOOD.

(Continued from page 434.—Conclusion.)

AND now, in conclusion, let me make a few remarks on the subject of the *fraudulent sophistications of food*—a subject which has been very popular for the last fifty years, or rather, I should say, since the year 1820, when Mr. Frederick Accum published his treatise on "Adulterations of Food, and Culinary Poisons," with the startling motto from the Book of Kings—"There is death in the pot." As you may easily imagine, such a terrible announcement by a well-known writer, could not fail to excite alarm in the public mind, and to provoke anxious curiosity. The book, therefore was eagerly sought for, and a thousand copies of it were sold within a month of its publication; so that, to use the words of the author, in his advertisement to the second edition—"there was sufficient inducement to reprint the work." The singular success of Accum's undertaking has been such a temptation to others, that the press has literally groaned with the efforts of sensational writers on this subject. And although I am ready to admit the importance of it, yet I am bound to state that it has often been grossly exaggerated, especially by those who have had but little practical knowledge to guide them.

The objects of fraudulent adulterations of food are three-fold:—

1. To increase the bulk or weight of the article.
2. To improve its appearance.
3. To give it a false strength.

Among the first of these adulterations are the following:—

(a) The addition of *inferior starches*, as potato-starch or English arrow-root, curcuma or East Indian arrow-root, jatropha or Brazillian arrow-root, tacca or Tahiti arrow-root, canna or Tous-les-mois starch, sago-meal, &c., *to true maranta, or West Indian arrow-root*—of which Bermuda arrow-root is the most esteemed variety. A microscopic examination of the starch or fæcula will always discover the fraud.

(b) The mixture of *starch-sugar* or even *starch* itself *to common cane-sugar*. Starch-sugar, or as it is sometimes called, grape-sugar, or glucose, is manufactured both in this country and on the Continent to a considerable extent. It is made from any description of starch, by boiling it for half-an-hour or so in water, containing about one per cent. of sulphuric acid. The acid is then neutralized with chalk, and the liquor evaporated to a density of 1·28. While hot, it is run off clear from the insoluble precipitate of sulphate of lime, and on standing in a cool place for a few days it crystallizes or sets into a solid mass. This description of sugar has a low sweetening power—not half so great as that of cane-sugar—in fact it is produced from the latter by the action of vegetable acids and heat, when cane-sugar is added to fruit in making a tart or fruit pie, and in making jellies and jams. It is false economy, therefore, to sweeten to any extent before the tart is baked. The sugar is known by many characters, as a want of sparkle from the absence of well-formed crystals; its less solubility in water, and greater solubility in alcohol; and by its giving a deep port-wine tint to a solution of potash, when it is boiled with it.

(c) The dilution of *milk*, *vinegar*, &c., with *water*. This fraud is easily detected by the specific gravity of the liquid, and in the case of milk by the proportion of cream in the lactometer, and by the poor appearance of the milk when under the microscope.

(d) The mixture of *dripping* and *other fats* with *butter*, and *water* and *starchy* matter with *lard*. Butter and lard should always furnish, when melted, a clear looking oil, with but little deposit of water or other substance.

(e) The addition of *gelatine* to *isinglass*, which is sometimes so well managed that it requires a skilful analysis to detect it. Isinglass is an organised substance, and, when examined with the microscope, exhibits a peculiar structure which is very characteristic of it; not so, however, with gelatine. A particle of isinglass put into cold water remains opaque, like a piece of white thread, and does not swell out; whereas, gelatine becomes transparent, and enlarges a good deal in bulk. Jelly made from good isinglass has a slightly fishy smell, and is neutral to test-paper, but that from gelatine has a distinct odour of glue, and an acid reaction. Lastly, if a few grains of isinglass be burnt in a metal spoon until the ash alone remains—the ash will be very small in quantity, and of a reddish colour, while

that of gelatine will be much larger in amount, and of a white appearance. Gelatine never agrees with the delicate stomach of an invalid like isinglass; and, therefore, it is often important to discover the difference.

(*f*) *Coffee* adulterated with *chicory*, is readily detected by sprinkling the mixture upon water, when the coffee, which is slightly greasy from volatile and fixed oil, floats, while the chicory sinks, and gives a brownish tint to the water. The experiment is easily made, as you here see, in a tumbler of water, and you may, with a little tact, determine the proportions of the mixture.

(*g*) *Wheaten flour* is frequently added to *flour of mustard*, and when the quantity passes beyond a certain amount, it is undoubtedly an adulteration, for the intention of it should be only to reduce to an agreeable extent the pungency of the mustard.

Of the second class of adulterations, where the object is to *improve the appearance of the article*, there are many examples, as :—

(*a*) The addition of *alum* to *bread*, by which, as I have already explained, inferior, and even damaged, flour may be made into a tolerable looking loaf. It is the property of alum to make the gluten tough, and to prevent its discolouration by heat, as well as to check the action of the yeast, or ferment upon it. When, therefore, it is added to good flour, it enables it to hold more water, and so to yield a larger number of loaves; while the addition of it to bad flour prevents the softening and disintegrating effect of the yeast on the poor and inferior gluten, and so enables it to bear the action of heat in the process of baking. According to the quality of the flour will be the proportion of alum, and hence the amount will range from 2 oz. to 8 oz. per sack of flour. These proportions will yield from 26 to 35 grains of alum in the quartern loaf, quantities which are easily detected by chemical means. Indeed, there is a simple test by which much smaller quantities of it may be readily discovered. Infusion of logwood, as you here perceive, acquires a rich purplish carmine, or claret tint, when it is brought into contact with alum; you have, therefore, only to dip a slice of the bread for an instant, as I am now doing, into a weak, watery, solution of logwood, and if alum be present the bread will speedily acquire a purple, or reddish purple, tint. I have already described to you the other properties of good bread, as that it should not exhibit many black specks upon the upper crust; it should not become sodden and wet at the lower part by standing; it should not become mouldy by keeping in a moderately dry place; it should be sweet and agreeable to both taste and smell; it should not give, when steeped in water, a ropy acid liquor; and a slice of it taken from the centre of the loaf should not lose more than 45 per cent. by drying.

Sulphate of copper is found to act like alum in improving the appearance of bread; and according to Kuhlmann, Chevallier, and others, it is commonly used by the bakers of the Continent, notwithstanding the severe penalties attached to it. In this country, however, it is but rarely employed.

(*b*) *The bloom, or glaze, or facing*, of green and black tea is generally artificial. In the case of green-tea, it is ordinarily a mixture of Prussian blue, turmeric, and sulphate of lime, or China clay; and in that of black-tea it is not unfrequently a coating of black-lead. The tea prepared for the English market is notoriously subject to these adulterations; and it seems that it arises entirely from our own fancy, and not from any desire on the part of the Chinese to pursue such a practice. The adulteration is easily discovered by shaking the tea with cold water, and then straining through muslin, and allowing the fine powder to subside.

(*c*) *Pickles* and *preserved fruits* are often made green with a salt of copper, it being the peculiar property of that metal to mordant, or fix in an insoluble form, the green colouring matter or *chlorophyll* of vegetables. If, therefore, the pickling operation is conducted in copper vessels, or if a little verdigris or sulphate of copper is added to the vinegar in which the vegetables are boiled, the colour of them will be retained. In some cases the quantity added has been so large as to give a coppery look to a steel-fork or knife plunged into the pickle. In such cases, and as might be expected, severe symptoms of poisoning have been occasioned by it.

(*d*) *Ferruginous earths*, or *red oxide of iron*, is frequently added to sauces, to anchovies, to cocoa preparations, and to preserved or potted meats, to improve their appearance.

(*e*) *Mineral pigments*, often of a poisonous nature, are used in colouring confectionary.

And lastly, with the view of giving a *false strength to the article*, we have instances of *sulphuric acid* added to *vinegar*, *black-jack* or burnt sugar to *coffee* and *chicory*, *catechu* or *terra japonica* to *tea*, *cocculus indicus* to *beer*, *cayenne* to *peppers*, &c.

That many of these sophistications are dangerous there can be no doubt, and all of them are frauds on the public. Parliament has therefore attempted to deal with the matter by legislation, as in the "Act for Preventing the Adulteration of Articles of Food or Drink" (23rd and 24th Vic., cap. 84) of 1860; but as the act is only permissive, little or no effect has been given to it. Even in those places, as in the city of London, where it has been put into operation, and public analysts have been appointed, no good has resulted from it; in fact, it stands upon the statute-book as a dead letter. Speaking for the city, I may say that every inducement has been offered for the effective working of the act, but nothing has come of it. In olden time, the remedies for such misdemeanours were quick and effectual. In the *Assisa panis*, for example, as set forth in *Liber albus*, there are not only the strictest regulations concerning the manner in which the business of the baker is to be conducted, but there are also the penalties for failing in the same. "If any default," it says, "shall be found in the bread of a baker of the city, the first time let him be drawn upon a hurdle from the Guildhall to his own house, through the great streets, where there be most people assembled, and through the great streets, which are most dirty, with the faulty loaf hanging from his neck; if a second time he shall be found committing the same offence, let him be drawn from the Guildhall, through the great street of Chepe, in manner aforesaid, to the pillory, and let him be put upon the pillory, and remain there at least one hour in the day; and the third time that such default shall be found, he shall be drawn, and the oven shall be pulled down, and the baker made to forswear the trade within the city for ever." It further tells us that William de Stratford suffered this punishment for selling bread of short weight, and John de Strode for making bread of filth and cobwebs. One hoary-headed offender was excused the hurdle on account of his age and the severity of the season; and it would seem that the last time the punishment was inflicted was in the sixteenth year of the reign of Henry VI., when Simon Frensshe was so drawn. A like punishment was awarded to butchers and vintners for fraudulent dealings; for we are told that a butcher was paraded through the streets with his face to the horse's tail, for selling measly bacon at market, and that the next day he was set in the pillory, with two great pieces of his measly bacon over his head, and a writing which set forth his crimes. In the judgments recorded in *Liber albus* there are twenty-three cases in which the pillory or the thew were awarded for selling putrid meat, fish, or poultry; thirteen for unlawful dealings of bakers, and six for the misdemeanours of vintners and wine-drawers. Of a verity we have degenerated in these matters.

And now, in conclusion, having directed your attention to the nutritive values of different kinds of food; to their functional and dietetical powers; to the modes in which they are associated; to the quantities required for ordinary labour; to the manner in which they are digested; to the effects of culinary and other treatment; to the way in which they may be preserved; and to the causes of their unwholesomeness, we may finally ask if any great generalizations can be deduced from our inquiries?

In the first place, you will, I think, have observed, that there are very striking evidences of design in the way in which organic matter is constantly kept in motion, for, whether living or dead, it is always in a state of molecular activity—either advancing towards the highest state of organization, or retreating to the confines of the mineral kingdom. The result of this is that, with a comparatively small amount of material, and with but little expenditure of force, the work of the living world is fully and effectively performed. Starting from the mineral kingdom, as carbonic acid, water and ammonia, the elements of organic nature pass through a succession of changes, first in the vegetable and next in the animal, until they reach the summit of organization, when they again return to their primitive condition. In this manner a never-ending round of change is perpetuated, and the same material, and the same force are kept moving in the same continuous circle. Through the efforts of the plant the crude materials are formed into vegetable acids, sugar, gum, starch, fat, albumen, and tissue; and then the animal converts them into higher forms of structure, as into gelatine, muscle, and brain; the two extremes, therefore, of these changes are, to use the words of Gerhardt, carbonic acid, water, and ammonia at one end; albumen, gelatine, fat, and cerebral matter at the other—but the transitions to these extremes are countless, and are, as yet, beyond the reach of science. Broadly, however, we may say that the chemical functions of the plant are those of reduction or deoxydation, whereby carbonic acid and water are deprived of their oxygen, and moulded with nitrogen into food; while those of animals are of an opposite nature, for they destroy this food by oxydation. The plant, therefore, is the machine or medium whereby carbonic acid, water, and ammonia, are converted into new compounds, and light and heat are transformed into chemical affinity; and the animal is the medium or machine whereby these compounds are destroyed, and their affinities changed into other manifestations of force, and finally into heat. In this way the circuit of change is completed, and it is not, therefore, difficult to trace the phenomena of vitality to the cosmical forces which the plant had imprisoned. But shall we ever be able to follow through all the intricacies of change, the countless transitions of both matter and force in their passage from the mineral kingdom to the animal, and then back to the mineral again? It is easy to connect, by a correlation of force, the muscular movements of the animal body, and even the highest efforts of the human mind, with the sunbeam which the plant had arrested; but shall we ever be permitted to unravel those mysterious functions which constitute the phenomena of life? Why is it, for example, and how comes it that the living cell of the plant is able to aggregate mineral matter in opposition to the common laws of affinity, and can transform light and heat into cell-force? How is it, too, that the animal in reversing the process, and so restoring the play of affinity, is able to transmute it into other manifestations of force? At present, the utmost we can say of it is, that organic matter is the appointed medium of all these changes, and is designed for the exhibition of vital phenomena, just as mineral matter is the appointed medium for the phenomena of electricity and magnetism; and yet to some extent, perhaps, we are able to penetrate the mystery; for by finding the clue to the peculiar action of the vegetable in reducing chemical compounds, we can, by operating on such substances as carbonic acid, water, and ammonia, produce a large number of organic principles: in fact, of the three great classes of alimentary substances, to which I have so frequently directed your attention—namely, the oleaginous, the saccharine, and the albuminous—it may be said that the first is already within the manufacturing power of the chemist, and the second is nearly within it: so that there is abundant proof that the agency of a vital force is not necessary to the formation of organic compounds, and there is even hope that the fabrication of food may not be altogether beyond the capabilities of man.

Original Communications.

ON THE TREATMENT OF DISEASES OF THE SKIN.

By J. L. MILTON,

SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

CHAPTER II.—SQUAMÆ.

(Continued from page 264.)

B. Pityriasis.—A loosening and falling of the epidermis in the form of minute, branny scales, accompanied by more or less itching, and sometimes in recent cases by heat and redness. Divisions—1. P. simplex, or that just described, generally seated on the head, but may also assail the beard, eye-brows, &c. 2. P. rubra, in which, besides these symptoms, the true skin is inflamed. May attack all the surface. 3. P. versicolor, in which irregular shaped patches appear on the skin, sometimes almost of the colour of a withered leaf, again of a dirty clay tint; generally beginning on the front and middle part of the chest, or in the arm-pits, accompanied at times by fine desquamation, and a good deal of itching.

Mr. Wilson has incorporated pityriasis with his group of eczematous affections, and I think there can be little doubt that pityriasis is often arrested eczema; long ago I called attention to the fact that both tinea circinata and tinea favosa bore a close analogy to eczema, and were capable of passing into it.

All forms of pityriasis, and especially the two first, are in the majority of cases connected with considerable disorders of the health: in one person assuming the form of weakness, lassitude, and weariness; in another of furred tongue, foul breath, loss of appetite, &c.; a third person may suffer a good deal from indigestion and biliousness; a fourth may be labouring under oxaluria, &c. Now, there need be little hesitation observed about saying, that when any of these symptoms are present in an advanced stage, and very often when they exist to only a trifling extent, local treatment will be of little avail, and special treatment of no use at all. The first thing, therefore, is to attack them with their appropriate remedies: citrate of iron, with an ample addition of lemon-juice, a mineral acid, such as the dilute nitric, or aromatic sulphuric, acid in some bitter infusion or tincture, the action of which is often greatly aided by the use of small doses of mercury, such as four or five grains of grey powder taken three or four times a-week, or a grain of blue bill with an equal quantity of acetic extract of colchicum, taken every night. It often happens that such disorder of the health is so slight as not to require the continuance of those remedies more than two or three weeks, but I believe patients are always better for a course of them.

When this has been done a long steady course of arsenic in small doses may be prescribed with every hope of benefit. Bichloride of mercury given daily to the extent of one-eighth, or one-quarter of a grain, is an extremely useful adjunct. The nitric oxide of mercury may be applied every day in the form of ointment. The ointment should be thinned down with a little spirit of wine, or glycerine may be added. When the disease is seated on the head it is always best applied by another person, as the patient will smear the greatest part of the ointment on the hair, thus causing an unnecessary amount of dirt and discomfort without doing any good. I beg, however, it may be understood that I do not take upon me to say the nitric oxide ointment is the best, but that it is the ointment from which I have derived the best results; indeed, it is the only one, the action of which I have been able to examine with such care as would justify me in giving an opinion; the only similar preparations with which I have compared it are those of the chloride of mercury, the ammonio-chloride, and the yellow nitrate.

In pityriasis versicolor, unless there be any marked disorder of the health, the solution of arsenic may be at once

begun with, and given till a distinct impression is made upon the disease; should there be any disorder of the health, it will be absolutely necessary to set this right, for it is of no use giving arsenic till the stomach is in a fit state to bear it. So soon as the patches begin to grow paler under the influence of this potent mineral, local means may be put in operation. One of the best that I know is strong tincture of iodine, made by adding, at least, a scruple of iodine to an ounce of the ordinary tincture; this may be painted on the surface with a glass brush three or four times a week. The sulphur-bath, taken once a week, is also a valuable remedy, but it is so often impossible to obtain it that the recommendation is almost nugatory.

For general pityriasis, as also for that rare form known as red general pityriasis, Mr. Startin gives demulcent and slightly diuretic medicines. His external treatment is directed towards soothing irritation, being principally demulcent baths, such as glue in solution, linseed mucilage, milk, yolk of egg, bran liquor, or quinæ-seed gruel, thinned down with water. He also prescribes mild alkaline baths, and follows these up with the sulphur-fume bath. For local pityriasis, Mr. Startin gives aperient chalybeates and small doses of bichloride of mercury, aided by lotions of borate of soda, by the sulphur-fume bath, and by creosote ointment. For pityriasis nigra, he prescribes lotions of bichloride of mercury, dissolved in a small quantity of hydrochloric acid. When the head is the seat of the disease, Mr. Startin advises that it should be washed every third morning with yolk of egg and tepid water. He is entirely opposed to the use of soap. Mr. Wilson, for red general pityriasis, gives nitro-muriatic acid with a bitter, citrate of iron and quinine and phosphate of iron. Externally he has found the best results from warm baths, used daily, and prolonged for an hour or more. The whole affected surface is afterwards smeared over with benzoated oxide of zinc ointment. He says pityriasis capitis, or rather erythema capitis, invariably yields to an application composed of one part of red precipitate ointment and three of lard, or to the white precipitate ointment diluted in the same proportion. For pityriasis versicolor, Mr. Wilson recommends a lotion containing half-an-ounce of hyposulphite of soda, and half a drachm of carbolic acid to the eight ounces. M. Hardy treats pityriasis of the scalp with soap and water, and a solution of carbonate of potass, afterwards using an ointment of one part of sulphur to thirty of lard, or one gramme of nitric acid to thirty of lard.[1] When the disease occurs in old people, Dr. Frazer uses a weak solution of tannin in glycerine.[2] When crusts form in children suffering under this complaint, he directs that they should be got off with a wash made of equal parts of spirit of rosemary, or brandy and strong vinegar. In diffuse pityriasis, Dr. Neligan used to prescribe mild mercurials and alkalies, with taraxacum and hyoscyamus; for external use mild gelatinous baths. If the eruption resisted this treatment, he ordered alkaline baths, the patient on leaving the bath being well rubbed over with weak elder flower ointment, containing glycerine. In local forms the dilute citrine ointment was rubbed in. In obstinate cases iodine and arsenic were resorted to. All stimulants were excluded from diet. Dr. Neligan was strongly opposed to the indiscriminate use of stimulating applications, a canon of treatment in which I quite agree. Dr. Jenner uses a solution of bichloride of mercury, four grains to the ounce.

Respecting the contagious nature of pityriasis versicolor, we find, as we might expect, every shade of opinion. Mr. Wilson utterly scouts the idea, and Mr. Startin is, I believe, silent on the subject. Mr. Naylor considers it contagious in, perhaps, one case in ten. Dr. Hillier says nothing about the matter; while Dr. Fox leaves us to infer from what he says that it is contagious beyond all question.

I at once admit that I have given so little attention to the subject that I am scarcely qualified to give an opinion at all. At the same time, I am quite prepared to abide by the consequences of stating that the disease is certainly not contagious as a rule. Beyond all doubt cases will occasionally occur which bear the appearance of having arisen from contagion; but in the great majority of cases nothing of the kind can be made out. And as, in addition to this, it does not matter one straw, practically, whether or not it is contagious, I make no further apology for disposing of the subject so briefly, but content myself with giving the facts of several cases admitted at St. John's Hospital, and leaving the reader to draw his own conclusions. It is, however, to be borne in mind that another series of cases might present a different set of facts.

Out of more than twenty cases noted at the hospital there was no history of contagion in any except two. In the first a father and mother, middle-aged, healthy people, living a short distance from London; their two sons and two daughters were all admitted as out-patients, suffering under this affection, and at least two had it in a very severe form. Another daughter and her husband were also attacked by it, and were admitted about the same time. The disorder was stated by them to have been given by a little girl suffering under the complaint, and who had been staying with the family. The second case was that of a husband and wife, their history being that the husband had had the complaint for a long time and in a severe form at the time of marriage, whereas the wife had never shown a symptom of the complaint till she married, soon after which patches of pityriasis versicolor began to appear on the bosom, front of the abdomen and thighs. At the time they began attending they both had unmistakable symptoms of the complaint in question.

As some of my readers may wish to examine the parasite, I quote from Mr. Naylor's work the recommendation to try the plan suggested by Gudden, of raising a blister on the skin by means of some vesicant, and removing the epidermis. The spores will be seen on the upper surface with mycelium penetrating between the scales of the epidermis.

C. Ichthyosis.—Definition—A dry, harsh, warty or scaly state of larger or smaller portions of skin, attended by change of colour in the affected parts, and extreme deficiency of perspiration; often congenital, unaccompanied by pain. Divisions—1. I. simplex. A general dryness and roughness of the skin, with fissuring of the epidermis, which is of a dirty grey or tawny colour; often beginning early in life. It may assume a very aggravated local form, the papillæ becoming covered with hard, tenacious scales, of a dull greyish-green colour. 2. I. cornea (a form of sclerosis); dry, hard, extremely tense state of the skin, beginning at one spot, and gradually extending all over the body, greatly impeding movement of every kind, attended with diminished warmth and sensation. Very rare; possibly of traumatic origin. 3. I. sebacea. Formation of small, hard, prominent, tenacious crusts, the skin beneath which is red, glazed, and tender. The form of ichthyosis mentioned by Willan and accompanied by the formation of horns, is referred to that head. The porcupine disease is simply a variety of ichthyosis simplex.

Treatment.—For simple ichthyosis Mr. Startin recommends bichloride of mercury and arsenious acid, with alkaline baths, and lotions containing creosote. An instance of the local form of this affection, seated on the cheek, is mentioned by the same author[1] as having been successfully treated by blistering with nitric acid and applying arsenical paste. The disease was to all appearance cured, but a scar remained.

Mr. Wilson recommends cod-liver oil and arsenic, Donovan's solution, frictions with fresh and sweet neat's-foot oil, brisk rubbing with the Indian flesh-glove or keesah, a tepid soap-bath once or twice a week, and the sponge-bath as often. Croton oil or ammonia may be employed in the form of friction; sulphur and potass were given with great benefit in one case mentioned by him. The prognosis Mr. Wilson considers favourable. If we cannot cure

1 Leçons sur les Maladies de la peau. 1860. P. 132.
2 Treatment of Diseases of the Skin. 1864. P. 12.

1 *Medical Times*, vol. xiii.

the complaint, we can restore the patient to tolerable health and comfort.

Dr. Begbie[1] found arsenic fail in the treatment of ichthyosis simplex, though in one case it produced some improvement. Mr. Hunt, on the contrary, has been extremely successful with arsenic. He tells us that after the skin has been for many years so rough and rugged that it scarcely wears a human look, it will become smooth and delicate. In some patients this novel state has been permanent; in others the disease has returned. Still, Mr. Hunt maintains we can always give relief. If even we cannot cure the disorder we can ameliorate it, and at least get rid of the fissures which torment the patient so dreadfully. For external use Mr. Hunt prefers glycerine, with Fowler's solution diluted with water.

Dr. Neligan quotes two cases, published by Professor Banks, of the scaly (or simple) form of ichthyosis which were successfully treated, cod-liver oil being used both internally and externally, vapour-baths were also employed. A flannel dress, thoroughly impregnated with oil, was constantly worn next the skin. Dr. Neligan himself employed the following plan with great success; in three cases out of four the recovery was permanent. Iodine and iodide of potassium were given in decoction of elm-bark, and the affected parts were dressed with an ointment containing, at first, twenty grains, and afterwards a drachm of iodide of potassium to an ounce of lard and a drachm of glycerine. Alkaline baths, containing a drachm of carbonate of soda to a gallon of water, were used a quarter of an hour before the ointment was rubbed in, and the flesh-brush was freely employed while the patient was in the bath.

In the spinous or warty form, which, as I have said under the head of definition, I mean to be understood as an aggravated variety of simple ichthyosis, Mr. Wilson advises that the skin should be softened with warm alkaline washes and baths, and then stimulated with a lotion such as that of the tincture of croton.[2] Constitutional remedies may be tried, and both Fowler's and Donovan's solutions will be found useful. He advises also a course of liquor potassæ in decoction of sarsaparilla. Willan and Elliotson have both recommended pitch, to the extent of half an ounce daily. I have had no experience of it in this rare variety, but from what I have seen of the action of pitch in other complaints, I should not expect much effect from it. In the case I speak of there were several complete ridges of long, but rather soft, spines. They were all limited to one side of the body, and were seated on the side, shoulder, upper part of the chest and neck. Many of the spines were two-fifths to half an-inch in length. This patient was a lad of thirteen or fourteen years old. The case underwent no improvement, and I soon lost sight of him.

Mr. Naylor says[3] that in ichthyosis there is generally a great excess in the quantity of urine which is, moreover, of a low specific gravity, and usually of the palest yellow colour. In a specimen which I examined lately, a portion of the whole bulk of urine passed during the twenty-four hours by a little girl six years old, labouring under this disease, the colour was decidedly pale and the specific gravity 1016. It was acid, and yielded a very small quantity of mucus. Half-an-ounce treated in the way recommended by Bird,[4] gave gr. 0·90 of nitrate of urea, and little more than traces of uric acid were found. The addition of nitric acid produced a greenish gray colour. There was no albumen, and no excess of bile. An ounce produced 1·80 gr. of extremely hard white ash. Judging as well as one can from these slight indications, it might be worth while to try the effect of colchicum and acetate of potass.

The sebaceous variety is, when the patient will give us fair play, by no means such a formidable affair. Warm baths, frictions, bichloride of mercury in emulsion of bitter almonds, with laxative medicines, are recommended by some authors.

In the chapter on eczema, I hope to be able to give my reasons for referring to this disorder, the two cases of sebaceous ichthyosis, so ably and lucidly related by Dr. Ogle in the Transactions of the Medico-Chirurgical Society, and treating them as varieties of eczema, to be met with steel and arsenic. But the complaint is so rare that few men ever have had, or will have, much experience as to the real effects of treatment upon it.

(To be continued.)

1 *Edinburgh Medical Journal*, 1861-2, p. 1.

2 Mr. Wilson's form for the tincture of croton is—

℞ Semin contus, ℥i.
Spir. vini. rectif., ℥iv.

Macera per dies quatuordecim et cola. The lotion consists of a drachm of the tincture to half a-pint of fluid.

3 Diseases of the Skin. P. 63.

4 Urinary Deposits. Fifth Edition.

EXTRAVASATION OF URINE, FROM BURSTING OF THE URETHRA BEHIND A STRICTURE OF LONG DURATION.

PERINEAL SECTION: RECOVERY.

By HENRY GRAY CROLY, F.R.C.S.I.,
SURGEON TO THE CITY OF DUBLIN HOSPITAL.

VISITED, in consultation with his medical attendant, Mr. ——, who had been suffering for years from stricture of the urethra, for the relief of which instruments had been introduced from time to time.

About a week before my visit he felt a swelling in the perineum, for which, however, he did not seek advice. He passed water (as usual with difficulty) until the night before I saw him, when he felt an unusual and painful sensation in the perinæum "as if something had given way," and soon afterwards he found the scrotum becoming much enlarged. This swelling increased rapidly, and he passed a restless night; being alarmed, he sent for his medical attendant in the morning, who recognised the serious nature of the case, and recommended additional advice.

On examination, I found him in the following condition:—Scrotum enormously distended, and of a shining red colour, a fluctuating tumour, the size of a hen's egg, occupying the median line of the perinæum. He said that he passed some urine with great pain and difficulty during the night, after the sensation of "something having given way." His pulse was 136 in the minute, his tongue was furred, and other symptoms of constitutional disturbance were present. The room had a strong smell of ammoniacal urine. The urgent necessity for immediate operation was explained to the patient, to which he readily consented.

Having placed him on a table in the lithotomy position, and the pelvis being raised on a pillow, I endeavoured to introduce a catheter into the bladder, but found a stricture (near the bulb), through which the instrument would not pass. I then introduced "Syme's staff" down to the stricture, and with a long straight bistoury made a deep and free incision in the median line of the perinæum, over the tumour. A large quantity of pus escaped. I next introduced the forefinger of my left hand deeply into the wound, and felt for the staff, and having reached it, I got the knife into the groove, and opened the urethra freely from behind forwards. Scarcely any blood flowed from the incision.

I then made three long and deep incisions into the scrotum, which was enormously infiltrated—a large quantity of fluid, smelling strongly of urine, escaped. The edges of the incisions bled freely; pledgets of lint steeped in oil of turpentine were applied, and a T bandage. The scrotum was kept elevated. The patient was placed in bed with a hot jar to his feet; wine was given, and a full opiate administered. On the following day I ascertained that the patient had a rigor, and vomited soon after the operation; pulse 100 in the minute. He expressed great relief; slept well; urine passing freely through the perineal wound; scrotum much reduced in size. The pledgets of lint were removed, and the incisions were washed thoroughly, and subsequently dressed with carbolic acid lotion. Half a grain of opium and a grain of quinine to

be given every hour; also brandy and eggs with strong beef-tea.

On the third day I observed a superficial redness in the left iliac region, along the track of the spermatic cord, tender on pressure, and at once made a free incision into the part. This relieved the tension, and prevented further mischief in that region.

The bowels not having been freed for several days, a turpentine enema was administered with "O'Beirne's tube." Urine continued to pass freely through the wound in the perineum, and in small quantities through the urethra. Tincture of perchloride of iron in brandy and water was given every fourth hour. The scrotum was poulticed with linseed meal and solution of carbolic acid; a catheter was passed regularly to dilate the urethra. The carbolic acid dressing proved very valuable, and tended materially to promote healthy granulation. The wounds healed rapidly and the patient made a satisfactory recovery.

From the history of the foregoing instructive case there can be no doubt that the urethra, which was dilated behind the stricture, communicated with an abscess by ulceration, causing the infiltration of urine, and the dangerous symptoms which resulted. The treatment in such cases must be decided and prompt—the incisions must be free and deep, and the urethra must be opened behind the stricture.

BURSITIS: PALLIATIVE AND RADICAL TREATMENT.

By P. C. LITTLE, F.R.C.S.I., Etc.

At present much attention is justly devoted to affections of the knee. In your ably-conducted journal (Vol. ii., No. 52), I had occasion to comment upon injuries of the knee-joint by foreign bodies, and I now beg to add some remarks upon bursitis—an inflammatory condition in the vicinity of that joint, as manifested in the following case:—

January 10th, 1868.—T. H., aged 27, an iron-moulder, of light complexion, scrofulous and delicate appearance, consulted me for a painful swelling of both knees. For a few years passed, he felt numbness over the patellæ, attributed to the pressure of an iron-bound moulding box of about three-quarters of a hundredweight, which he used to support above "the knee-caps." During the last five months, he experienced soreness of the knees, especially when kneeling in damp sand, which he was obliged to do every day in his business. Some weeks ago, a considerable tumour appeared rather suddenly upon the right patella, which soon became red, hot, and sensitive. The left knee was also slightly enlarged and tender. I advised rest of the limbs in the extended position; hot poppy fomentations to the right knee; saline purgatives; light and nutritious, but unstimulating diet; and, subsequently, bitter tonics. In a few days, the high inflammatory symptoms were thus subdued; and, by counter-irritation with sinapisms and tincture of iodine, in about four weeks the swelling entirely disappeared from the right knee, leaving the integuments condensed and adherent to the patella. The left knee was still somewhat enlarged, but the patient being otherwise well, with my consent, resumed his work on the 17th of February.

March 14th.—He again sought relief from me, as the left knee had become so large, stiff and sore, that he was no longer able to kneel at his business. The tumour was now of an oval shape, and of great size. It extended in the line of the limb for six inches—*i.e.*, from about an inch above the patella to an inch below the tubercle of the tibia. Transversely from one femoral condyle to the other, it measured five inches. The skin over it bore no signs of inflammation. It felt cool, dense, doughy, and full of fluid.

I decided upon at once tapping it, which I did in this way: I selected a prominent spot about an inch above and external to the tubercle of the tibia, on which I directed the anæsthetic spray until sensibility was suspended. With a lancet, I then divided the hypertrophied structures as far as the bursal cavity, which with much difficulty I penetrated with a trocar and canula, giving exit to about eight ounces of viscid yellow coloured fluid, mixed with serosanguineous matter, and a few small flocculent particles, like semi-coagulated albumen. I then made moderate pressure over the sack to induce irritation; and, with the same object, introduced through the canula two plies of dentist's silk. After that I withdrew the instrument, ordered the patient to rest quietly in bed, keep his bowels free, and take only light food.

On examination I found that the fluid so evacuated was alkaline, contained albumen and fibrine in large quantities, and its specific gravity was 1022.

March 16.—There was no sign of inflammation about the knee. The bursa had refilled with fluid. Again I let it out with the trocar and canula, and injected into the synovial cavity a half an ounce of tincture of iodine, in combination with an ounce of water, which I retained in the sac for nearly five minutes, while I kneaded the walls of the bursa to excite inflammation. After which I allowed the injection to trickle away, guided by the silk thread which I replaced.

18th.—Much irritation had been produced, but the sac was again fully distended. I emptied it as before, and subsequently on nine consecutive days, without much prospect of effecting a radical cure. However, on the last of those occasions (27th March), I made a final effort, by rubbing briskly together for a long time the inner surfaces of the cavity.

29th.—Two days after the latter proceeding, high inflammatory symptoms set in. The knee became very warm, angry-looking, and swollen. It was also hard and extremely sensitive. The structures of the joint were unaffected, as I ascertained by my communicating a strong impulse to under surface of os calcis, without increase of pain. There were sharp febrile manifestations, intense heat of skin, headache, flushing of face, shivering, sickness of stomach, pain of the back, constant thirst, constipation, and much nervous and mental disturbance. The pulse was full, bounding, and quick—98. I prescribed a saline aperient with Daffy's elixir to free the bowels well, hot linseed poultices to the knee, low diet, and abundance of cold drinks.

31st.—He complained of sleeplessness for the last two nights, loss of appetite, frequent rigors, physical prostration, anxiety of mind, and unaccountable fear. I was informed that he had been delirious at times since my last visit. The pulse was strong and rapid—116. The knee appeared highly inflamed, dusky, distended to the utmost, and very sensitive. I gently passed a blunt pointed probe through the old orifice, and about a half-pint of thick grumous matter gushed out. The pulse at once fell to 88, soft and tranquil; the features became composed, the bowels rumbled, and the other distressing symptoms at once subsided. I then attached the limb to a splint, extending from the back of the thigh to the heel; recommended the knee to be constantly poulticed; wine in moderation, and plenty of beef-tea, &c., to be given.

April 1st.—He was much better; pulse 84, rather weak; bowels confined; joint much swollen; duskiness over patella, at both sides of which (especially the outer) there was an extensive blush of erysipelas, with œdema and tenderness on deep pressure. I advised the saline purgative as before, the poultice to completely envelop the joint, and wine to be taken more freely.

3rd.—On my removing the poultice to-day, the cold air seemed to cause such contraction of the integuments, that a large quantity of pus with bloody serum spouted out of the little aperture, with great relief to the sufferer. The pulse was 68, quite natural. The treatment to be continued.

8th.—There was no discharge to-day, and the cavity seemed obliterated. I therefore applied evenly from the toes to above the patella a bandage, which the patient felt very agreeable. I then allowed him to get up and sup-

port his leg on a chair for a few days. His appetite being indifferent, I prescribed Tinct. ferri muriat., and for the knee cold douches morning and evening, with frictions of compound camphor liniment afterwards. By such means, in about a fortnight more, he was quite well. The integuments over the patella became indurated and adherent, causing a feeling of stiffness about the joint, which daily grew less, and he has since followed, without any inconvenience, his arduous calling. As a preventive of future injury to the knees, I recommended him to wear a piece of thick sheep-skin with the wool on, stitched on the inside of the knees of his work-trousers, which, I have no doubt, will answer the desirable end in view.

The most perfect of all mechanisms—the human frame, is endowed with protective qualities which challenge our admiration. The character of rotundity which pervades the exterior of the body, as well as its internal organism, the graceful curvatures of the long bones and spinal column, the inter-osseous and inter-articular cartilages, the prevalence of areolar, fatty, or dense tissues, where pressure is more likely to occur, bespeak a supreme prescience. On the same principle, we find in some regions, between bone and muscles, tendon and integument, an intermediate element which modifies the resistance of those opposed substances, as well as diminishes impulses from external causes. Such are the character and use of the cavities called *bursæ*, which are either natural, as that between the integument of the knee and patella, or adventitious—the product of circumstances. Much diversity of opinion exists as to the nature of these structures.

1. Some with Abernethy hold, that they are *bursæ mucosæ*, which is incorrect, as their secretion is not merely mucus, but, according to Virchow, is very similar to colloid matter.

2. Kölliker considers them to be only enlarged spaces of areolar tissue, as they are not lined throughout with epithelium. He, however, observes that the membrane is wanting, precisely where pressure is made. May not such deficiencies be the result of a morbid action, as in the case of arthritis with erosion, or absorption of synovial membrane? The constant or excessive attrition at those particular parts, may have removed the delicate lining, as a similar cause is known to change a cutaneous surface into a mucous membrane. Or, the absence of epithelium from those salient points, may be a normal provision in the economy for the percolation of the peculiar bursal secretion, for which Kölliker has failed to account. Such explanations would appear to simplify this obscure and important matter.

3. Many view those recesses only in the light of their contents, and call them, therefore, *synovial bursæ*. That would be an easy way to dispose of the yet unsolved pathological difficulties of the subject, and is no less than a *petitio principii*. Clapton Havers was of opinion, that, synovial secretion was generated in the fat-cells which exist in the joint tissues. That view vanished immediately upon chemical examination by Frerichs, who found that this fluid contained many of the constituents of blood. It would not, therefore, be unreasonable to suppose, that, the former was an exudation of the latter, resulting either from inflammatory action, or from an atonic condition of the vessels in the areolar tissue, or synovial membrane. That the inner lining of enlarged bursæ resembles, if it be not really the same as that of the neighbouring joint, appears probable from established facts. The synovial membrane of the knee-joint is sometimes known to embrace the tubercle of the tibia, which explains the occasional development of synovitis in the progress of bursitis, especially after puncturing the bursa. In the case before me, I hesitated taking that step lest such a consequence might ensue. Again, bursitis (as in this case) is often attended with most of the local, and all the constitutional, symptoms of inflammation of the synovial membrane of the joint.

There is little to remark touching my treatment, which was palliative as regards the right knee, and radical as to the left. I was much surprised that the latter was so slow in taking on inflammatory action, especially after the iodine injection. The manipulative process, which was so successful in setting up that condition, has many advantages, amongst which are its simplicity, readiness, safety, and certainty. I believe this plan may, with propriety, be resorted to in all chronic tumours which require irritation, or the greatest vascular excitement, for their cure. I have heard that Mr. Syme applies it largely and heroically in hydrocele of the tunica vaginals, after evacuation of the fluid, and with entire satisfaction. It may be observed that, after kneading the bursa, I did not for some days again let out its contents, although much general distress was thereby caused. My reason for abstaining was, to allow of adhesive inflammation to fairly set in around the circumference of the cavity. On the same grounds, I think it unwise to evacuate the pus as soon as secreted. The process of union would be thus retarded, and a weak state of the vessels induced. The general nervous disturbance and delirium were here remarkable, and reminded me of similar conditions I have observed during the radical cure of hydrocele. We may find the explanation of those serious symptoms in the high nervous organization with which the knee, like the testis, is endowed. The knee-joint was the only articulation into whose tissues Kölliker could trace nerve filaments.

I found, in the after-management of the case, a powerful agent in a back splint which steadied the joint, and so promoted the amalgamation of the walls of the bursa. The subsequent steps which completed the recovery of the patient need no notice, as they were such as are generally adopted.

I fear I have availed too largely of your valuable space. I shall therefore conclude with the hope, that at a future time I may return to the subject of knee affections in connection with acute and chronic rheumatism.

Hospital Report.

GUY'S HOSPITAL.

CASES ILLUSTRATING THE SPONTANEOUS CURE AND DEGENERATION OF NÆVI.

Under the care of THOMAS BRYANT, F.R.C.S.

THE following cases of spontaneous degeneration and inflammation of nævi will probably be read with interest; for they well illustrate the fact that there is a tendency in all nævoid growths to undergo a natural cure, and tend to suggest that operative interference is not required in all such cases.

I publish them simply as illustrative of the above remarks, it being foreign to my purpose to enter upon the treatment of this affection; but this, I may say, that unless a nævus is so situated as to be an eye-sore, or an inconvenience, and unless it shows positive evidence of its tendency to rapid increase, there is no necessity for operative interference; it will, to a certainty, after a time cease to grow, and will also to a certainty begin to degenerate or waste, and under these circumstances in a large proportion of cases it is hardly necessary to interfere. Under other conditions, however, active treatment is demanded.

The cases which I now publish illustrate these points. Cases 1 and 2 show how nævi may begin to ulcerate and degenerate during the uterine existence of the fœtus. Cases 3, 4, and 5, how the same curative process may appear soon after its birth. Cases 6 and 7 are admirable illustrations of the very peculiar warty and cystic degeneration which nævi naturally undergo. The warts in these cases are soft and spongy in character, easily bleeding when touched; they are specially characteristic of the degenerating nævus, and when once seen can hardly be mistaken for anything else.

Cases 8 and 9 show how those nævi may also inflame and suppurate, and even in rare cases slough out as a whole.

But, it is to be observed, that all these actions are spontaneous; they take place without any local treatment; they are the direct result of natural processes, and tend towards the natural cure of the disease.

NÆVUS ULCERATING AT BIRTH.

Case 1.—Amy H., five weeks old, was brought to me at Guy's Hospital, on December 15th, 1862, with a nævus involving half the nose. It had existed from birth, and was also ulcerating. The mother told me that it was sore and discharging when the child was first born. It had not grown.

As a case of nævus which had commenced to ulcerate and degenerate before the birth of the child, the case was a good one.

NÆVUS DEGENERATING AT BIRTH AS A WARTY AND CYSTIC DISEASE.

Case 2.—Arthur K., eight months old, was brought to me at Guy's Hospital, on March 10th, 1864, having been sent up from Gravesend by Dr. Armstrong. He was the subject of a large nævus involving the left half of the skin and cellular tissue covering the abdomen. This nævus was clearly undergoing degeneration, for it was the seat of a warty cystic growth, such as exists in such an affection. These cysts and warts were said to have been present at the child's birth, but to have become more numerous since. The child was under observation for some time, and the nævus clearly went on degenerating as usual in such a complaint.

DEGENERATING AND ULCERATING NÆVUS—CURED.

Case 3.—Edward James, æt. seven months, came under my care at Guy's Hospital, on July 31st, 1865, with a nævus the size of a shilling over the right scapula. It had existed from birth, but had increased in size, and for several weeks had become sore and discharged. When seen the nævus was clearly undergoing degeneration, for it was ulcerated over the whole of its surface. This ulceration continued, and when it had cicatrized the nævus was cured.

NÆVUS DEGENERATING AND ULCERATING SOON AFTER BIRTH.

Case 4.—Dora A., æt. six weeks, came under my care at Guy's Hospital, on March 13th, 1867, for a large nævus over the right buttock. It was much ulcerated, and had been so from the second day of the child's birth. This ulceration continued till the growth was nearly cured, and when it had cicatrized the nævoid structure appeared to be destroyed.

NÆVUS ULCERATING AND DEGENERATING SOON AFTER BIRTH.

Case 5.—Hannah F., æt. seven months, came under my care at Guy's Hospital, on March 14th, 1861, for a nævus of the mixed kind, involving the lower part of the right ear and parts below. It had grown gradually from birth, but for one month had been ulcerated over a great part of its surface; it was clearly degenerating.

NÆVUS UNDERGOING WARTY DEGENERATION.

Case 6.—Margaret S., æt. 10, came under my care at Guy's Hospital, in Nov. 10, 1861. She had been born with a nævus, the size of a crown, on the anterior part of her thigh, which increased with her growth for some years; for the last two years it had, however, ceased to enlarge, but upon its surface currant like bodies had appeared, which often burst and bled.

When coming under my care the whole growth was the subject of a cystic degeneration; its surface was studded with vesicular warts, some indurated, others translucent, discharging a blood-stained serum on being punctured.

It formed a very beautiful example of a degenerating nævus. Excision was advised but rejected.

NÆVUS IN CHEEK UNDERGOING CYSTIC DEGENERATION.

Case 7.—Ellen Hoil, æt. 24, came under my care at Guy's Hospital, on January 24, 1867. She had been under my observation four years previously for the same disease—a nævus, involving the whole thickness of her left cheek. This nævus had clearly been gradually undergoing degenerative changes, for the mucous lining of the cheek was the seat of a peculiar cystic warty growth, such as alone exists in a degenerating nævus. The nævus, during the four years, had not increased in size, but, on the contrary, had become more localized.

No surgical treatment was called for, as the growth was gradually becoming cured by natural processes.

NÆVUS ON HEAD, SUPPURATION AND RECOVERY.

Case 8.—Bertha M., 13 months of age, was brought to me at Guy's Hospital, on Nov. 10, 1862, for a nævus over the vertix of the skull, which had been growing till about six or seven weeks since, when it suddenly inflamed. When coming under observation the whole growth was indurated and discharging from several openings. Suppuration continued for three weeks, when the orifices closed, and the nævus underwent a rapid recovery.

NÆVUS ON THE BACK WHICH SLOUGHED OUT.

Case 9.—Eliza H., aged 6 months, came under my care at Guy's Hospital, in August 22, 1867, for a nævus which was clearly sloughing out as a whole. It had existed at birth, and had grown for some weeks, when it became sore and ulcerated. It then inflamed, and when I saw the child the nævus was evidently sloughing out as a whole. The slough separated readily by itself, and left a clean granulating surface as in a cellular membranous ulcer; when this had cicatrized, a good cure had taken place.

This case is the only one in which I have seen a nævus slough out as a whole.

Literature.

VISCERAL SYPHILIS.

"IN DUBIO, SUSPICE VENEREM."

CERTAINLY syphilis is a most important and protean disease, if we may judge from the numbers of works which yearly issue from the press, to illustrate some points in its history. The little work before us[1] is a most admirable and learned synopsis of all that has been written of late years upon the diseases of the viscera, said to be due to syphilis, and should be read by all who desire to learn how the question stands at this moment. Our author quotes from a vast number of writers, among whom we may mention Ricord, Rayer, Vidal, Gubler, Cullerier, Baerensprung, Simpson, Hutchinson, Virchow, Diday, Gibb, Jackson, Parker, Türk, Wilks, Moxon, and many others, to show that syphilis may affect every viscus, and even the muscles and the heart. He inclines to Virchow's theory of cellular hyperplasia, as accounting for the lesions found in the organs, and shows that these lesions occur in two different forms, the circumscribed and diffused, the former of which has been known by the name of *gummy tumour*. The period in which these inflammations attack the viscera is usually the tertiary stage, four, ten, or more years of the infection, and death sometimes is caused by cachexia. As to the nervous diseases referrible to syphilis, there is, first, syphilitic meningitis, which usually attacks the dura mater, causing giddiness, pain in one spot, or epileptic fits, these latter being one of the forms of that disease most amenable to treatment by large doses, such as gr. x.—gr. xv. of pot. iod., *t. d.* The os frontis and petrous bones are those most frequently attacked with caries. Our author does not speak of the dry caries, so well described by Wilks and others. Gummy tumours are sometimes observed in the brain (Lancereaux). Yellow spots are found in the cerebrum and cerebellum, causing impairment of the intellect, convulsions, and paralysis of certain muscles. Iodide of potassium, again, is valuable in such cases, in large doses. Hydrocephalus, our author thinks, is sometimes ascribable to hereditary syphilis, and Hutchinson is quoted, as referring idiocy in children to it. Dementia in adults may occur from softened gummata in the brain. The nerves affected in syphilis are principally the levator palpibrae superoris, and the

1 Visceral and Hereditary Syphilis. By F. Oppert, M.D. London: Churchill. Pp. 100.

branches of the fifth nerve. Retinitis and choroiditis syphilitica are now generally recognised, and the ophthalmoscope has pointed out various lesions of the internal eye, causing amaurosis. Interstitial keratitis, both in inherited and acquired syphilis, is by no means unfrequent. Deafness is common in cases of inherited syphilis, not in adult cases. Ozæna may cause anosmia, and gummata may cause loss of taste. Dr. M'Dowell relates cases of gummy tumours in the spinal cord, with palsy of the lower limbs; and Yvaren, Lancereaux, &c., speak of syphilitic sciatica, neuralgia, &c., cured by large doses of pot. iod.

Among the most important of the lesions caused by syphilis, are those of the larynx and trachea, especially in the tertiary stage; considerable loss of substance in the larynx may occur, and portions of the organ may be necrosed. Œdema of the glottis occasionally, though rarely, occurs. The cachexia in such cases is great. Solutions of tannin and atomized fluids inhaled, often do much good in such cases. Ulcers occur low down in the trachea. Abscesses of the thymus gland occur in infantile syphilis. Syphilis apparently causes inflammation and ulceration of the bronchiæ. Erythema of the mucous membrane is the commonest form of the disease. Gummata in the lungs not unfrequently simulate tubercular phthisis, and cases of the kind are cited by Virchow and Ricord. Wilks and Haldane have alleged that syphilis affects the heart, and gummata have been seen in its substance; but the liver is the internal organ of the body (Gubler) most frequently attacked by syphilitic deposits, especially in syphilitic infants there is interstitial hepatitis, and gummata are also seen enclosed in a capsule, or there may be amyloid degeneration of the organ (Frerichs). The spleen is sometimes affected with fibrous, fatty, or cheesy deposits (Beer); or sulphur-yellow deposits (Moxon). Gummata are often seen in the tongue, and the pharynx and œsophagus may contain such growths. Moxon and Wilks speak of lardaceous syphilitic disease of the colon, and stricture of the rectum. Rayer, in 1840, referred certain renal degenerations to syphilitic cachexia; and Moxon seems to consider amyloid degeneration as caused by it. Such kidneys are much enlarged, and there is fatty degeneration of the cortical portion, with yellow spots interspersed through it (Beer). Gummata have also been found. Albuminuria frequently exists in such cases.

It would appear, according to Lancereaux, that syphilis causes frequently ovarian affections; gummata are found, and these, it seems, may produce sterility. Hypertrophy of the womb is also said to be caused by it, and the placenta becomes degenerated and atrophied, causing abortion (Barnes). The testis is frequently affected with gummata, a growth very like tubercle of the testis. Iodide of potassium, gr. xx. *t. d.*, is very effective in this disease, if administered in time. It appears then that in many cases of inveterate syphilis, we may suspect that the internal organs are affected, and accordingly prescribe iodide of potassium. Our author is opposed to the ideas put forward by Jenner, F. Jordan, &c., as to scrofula being frequently a transformation of syphilis, and appears to agree with Hutchinson, Drysdale, &c., on this head. He would allow patients to marry a year after all symptoms of syphilis have disappeared. "Of course," he adds, "sexual intercourse may be interdicted (if persons are already married), or carried on under certain restrictions." Hereditary syphilis may, according to our author, arise from either parent. Cullerier and Simonet think that the mother *must* be infected first. He treats syphilitic children with mercury and chalk, and iodide of potassium, and, altogether, speaks well of mercury, though he seems more a believer in the last named drug.

With regard to prevention, he thinks that only certain classes of males can be subjected to examination, and mentions, with disapprobation, the Hamburgh plan of examining all men who frequent brothels. He appears in favour of a law for the examination of prostitutes, but without using severity. Special wards should be formed for them in large hospitals, and they should be treated with humanity and care. The younger members of the profession should be advised to study the whole question of syphilis most diligently, since the frequency of visceral syphilis is far greater than is believed. Syphilis is an international plague, but its spread may be prevented, if we cannot stamp it out, by legislation. In short, the remarks made by our author are full of interest, and we heartily recommend his work to the attention of our readers.

THE death of M. Stein, a well-known member of the Danish medical profession, is announced.

GERMAN MEDICAL LITERATURE.[1]

Professor Baerensprung is known as one of the first continental authorities on skin diseases to all who are acquainted with the literature of that subject. He had just begun a large work which was intended to be a standard work on German dermatology; but when the first part was published, the author met with an untimely death. The publisher therefore placed Professor Baerensprung's manuscripts and drawings into the experienced hands of Hebra, who readily promised his co-operation in publishing the Atlas and text—the first part of which is before us. It would be superfluous to say a word of the mode in which the work is brought out. Dr. Heitzmann is known to us as a skilful draftsman from Hebra's large atlas, and for the part which has been done by Hebra himself, the name is sufficient guarantee for the texts being written scientifically, clearly, and, at the same time, pleasantly and concisely, according to Hebra's mode of writing.

The first part contains, besides the text, ten plates, representing—1. Erythema, exudativum multiforme; 2. Urticaria; 3. Herpes facialis; 4. Herpes progenialis; 5. Herpes iris; 6. Herpes zoster; 7. Herpes circinatus.

The specimens chosen for the drawings fairly represent the special affections, so that by their aid, it would not be the slightest difficulty to recognise the disease in question. We therefore recommend the atlas to every practitioner who wishes to make himself familiar with the various diseases of the skin, the study of which is impossible without either living specimens or good representations of their cutaneous alterations.

A new part has just been published of that work,[2] which is intended to form a repository for the experiments, researches, and experience of the best of the German authors, all being well-known teachers in the different German medical schools. Seven parts have been published till now, one of them forming an excellent atlas of surgical operations, instruments, and topographical anatomy. In these parts, one name is particularly conspicuous, not only from the lion's share its bearer took in the work, but from the intrinsic value of his various papers—we mean Otto Weber, the late Professor of Surgery at the University of Heidelberg, whose obituary found no less an author than John Simon, President of the Pathological Society of London.

The work will not only be read by surgeons, but by physicians also, who are equally interested in general and special pathology of morbid growth and other affections, in the microscopic appearances of deteriorated tissues, in the mode how topographical anatomy has been treated in the different parts of the work, and in other objects of equal importance.

It would, of course, require much more space than we can command, to give even the mere outlines of the subjects contained in the parts before us. We must, therefore, content ourselves in saying, that many things have been introduced in a manner which reflect the highest credit on their authors. To name only one amongst many, we refer the reader to the second part of the first volume, which contains a treatise of Dr. Fisher, Staff-Surgeon in the Prussian Army, on military surgery, as studied on the battle-field.

This treatise, which would form a pretty volume by itself, not only enters into the question of how the different field pieces and arms act, how the wounded soldiers are to be treated on the battle-field and after the battle, but likewise gives full descriptions of so-called flying hospitals, and of all the arrangements which have been applied with benefit during the last war.

Professor Billroth's paper on poisoned wounds, and Dr. Nussbaums' essay on anæsthetics, general and local, are neither of less importance, nor less interestingly written. The first part of the third volume contains Dr. Trœltsch's paper, which is an abstract of the whole modern oral surgery, and the last published part (first of the second volume,) is the beginning of Professor Luecke's work on pathology and treatment of

1 Atlas der Hautkrankheiten. Nach Originalien von Prof. v. Baerensprung and Prof. Hebra. Zeichnungen von Dr. Carl Heitzmann, Text von Prof. Hebra. Erste Lieferung, Fol. Erlangen, Verlag von Ferdinand Enke.

Atlas of Skin Diseases. Drawings from originals by Prof. v. Baerensprung and Prof. Hebra. Drawings by Dr. Carl Heitzmann. Text by Prof. Hebra. Part. I. Folio. Published by Ferdinand Enke at Erlangen.

2 Handbuch der allgemeinen und speciellen chirurgie enit Einschluss der topographischen anatomie. Operations und Verbandlehre, enit 136 kupfertafeln, 52 litograph. Umrissen und zahlreichen holzschnitten, redigirt von Prof. Pitha und Prof. Billroth. Erlangen, Verlag von Ferdinand Enke.

A Manual of General and Special Surgery, including Topographical Anatomy. Operations and bandaging, containing 136 copper-plates, 52 lithographic outlines, and many wood-cuts. Edited by Prof. Pitha and Prof. Billroth. Published by Ferdinand Enke at Erlangen.

morbid growth, which exhausts the subject in a remarkable manner. All these papers are fully illustrated, and the microscopical appearances very minutely represented.

We have just only touched on a few subjects, which in many works of surgery are either neglected or even not mentioned at all. The parts contributed by the late Professor Otto Weber, are throughout classical, and many other essays are perfectly worthy of their place in such a prominent work as that which we have considered our duty to bring before the notice of our readers.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, MAY 27, 1868.

PROFESSIONAL EDUCATION.

IN prospect of the speedy meeting of the General Medical Council, this subject is again calling forth the opinions of many.

We have persistently, during the last few months, alluded to it, seizing every opportunity of noticing the various *brochures* that have been put forth, as well as the utterances of public speakers. It is not long since we discussed Mr. RIVINGTON'S pamphlet. Only last week we commented on Mr. BRUCE'S speech. Mr. SIMON'S views have been very fully illustrated in our columns.

We, at least, then have done our best to discharge this important duty of the medical press—full discussion of medical education.

We now invite our readers to consider a scheme of education put forth in a pamphlet by Professor PARKES.[1] This is a name that will command respect. As a teacher of many years' standing, formerly in London, now at Netley; as an examiner in medicine, and as a member of the Medical Council—Professor PARKES approaches the subject as one which must have engaged much of his attention, and upon which he speaks, as it were, with authority. His conclusions will be sure to have much weight, and certainly deserve the most candid criticism.

He lays down a plan of study extending over four years, by following which he believes a young man entering the Profession at 17 or 18 years of age, profoundly ignorant of all he desires to know, may become a safe practitioner, and as such receive his diploma; and he would make this plan compulsory on all. Now, here are two very distinct issues: first of all, the settlement of an uniform plan; secondly, the policy of making that scheme compulsory.

As to the first portion of his scheme, after giving it the fullest consideration, we are free to acknowledge that for a young man under the circumstances named we know of no better course for attaining his object. Further, we believe that any fairly diligent student who followed such a programme would have a medical education superior to that of the majority of existing practitioners.

Professor PARKES would have the whole of the four years passed at a recognized school. The first two years he would have entirely devoted to the subjects which form the foundations of medical knowledge proper—Anatomy, Physiology, Chemistry, Materia Medica, Pharmacy, Botany. All these subjects he would have taught practically—and to facilitate uniformity in the teaching, he suggests the issue of authorized text-books. The last two years would be occupied in building strictly professional knowledge on the foundations thus laid. Medicine, Surgery, Midwifery, Therapeutics, and State Medicine, are the subjects laid down. Professor PARKES would draw a very distinct line between the third and fourth years. The third he would occupy with medicine and surgery, by short courses of lectures of a practical kind, and clinical work in the wards. The fourth year would be occupied by midwifery and the other subjects named, and to the fourth year he would defer the attendance in the out-patients room, when he believes it would be of much more use.

Besides all this, Prof. PARKES would introduce school-tests of progress and other checks, both on teachers and pupils, which would, no doubt, contribute greatly to efficiency.

The whole scheme is very carefully considered in all its details, and the pamphlet ought to be studied by all interested in this great subject. We have acknowledged that such an education would be of the greatest value, and may further confess that, personally, could it have been found carried out by such men as Prof. PARKES in our day, we should have esteemed it a high privilege to follow it.

But the policy of compulsion demands a few words from us. It is urged by Prof. PARKES, that with our present system of competing licensing bodies, it is impossible to trust to the examinations as sufficient tests, and although he hopes that the corporations will render their tests more reliable than at present, he has evidently little faith that they will ever absolutely suffice, and, therefore, he has no wish to abolish the regulations which at present vex and perplex the student.

Having so freely admitted the excellence of the scheme for those who are commencing without any knowledge whatever of the subjects to be learned, we may with greater confidence urge the claims of those who are not in this condition.

It is no uncommon thing for a pupil to enter a school with a fair knowledge of some of the subjects, acquired at home or with some practitioner, or otherwise. Upon these the compulsory system would act unfairly. We have known pupils, for instance, who had gone through the courses of botany, materia medica, and chemistry at the Pharmaceutical Society, afterwards enter the Profession. Where is the justice of compelling such men to pass as many hours in going over what they know so well, and *paying* the teacher for telling them what they could as easily tell him? It is true these men are but a small minority; still compulsion admits no exceptions, and the scheme we have described is too inelastic to be applied to such cases.

This is not the only difficulty of any attempt to enforce uniformity of education—an attempt we think likely to fail, because it goes against all the prejudices of British subjects.

What is really wanted is uniformity of examination, and

1 "A Scheme of Medical Tuition." By E. A. Parkes, M.D., F.R.S., &c. London: J. Churchill and Sons.

the objection that the licensing bodies are not to be trusted admits of but one reply. They should either be compelled to do their duty or be superseded.

It is not to be expected that all will accept this conclusion, and we readily admit that there are difficulties to be encountered in the plan of complete freedom of education that many support, and that Mr. SIMON has once more brought into prominent notice. Still, these difficulties seem to us less than those to be met by the advocates of uniformity of education. There can be no difficulty in improving the standard of examination. We think it possible so to sift a man as to make the test prove all that it should—whether the candidate is fit to be allowed to practice.

When the Medical Council does its duty that will be guaranteed; but how, when, and where the candidate obtained his knowledge must ever be a matter of interest to himself and his personal friends alone.

TESTIMONIAL TO DR. RICHARDSON.

LAST Wednesday afternoon, the testimonial to Dr. Richardson was publicly presented to him at Willis's-rooms. Mr. Paget occupied the chair on the occasion, and in a neat speech, justified the presentation that had been determined upon, and so favourably responded to. He adopted, as he himself termed it, the line of a "counsel for the defence," acknowledging expressly his feeling, that "all testimonials need apologies." The introduction of this sentiment was, no doubt, intended to give force to the present exception, though the general feeling of the meeting seemed so heartily in favour of the gift on this occasion, that the apology might well have been dispensed with.

Nevertheless, we welcome it; since it shows that there is much sincerity in the general objection to testimonials, that has of late years been expressed, and the unanimity with which such feelings have been over-ridden on this occasion must, we think, prove an additional gratification to the receiver of the exceptional compliment. The number of the subscribers (about 600), and the amount (stated by the Committee at £1108, 15s. 7d.) sufficiently attest the manner in which the proposal to raise this testimonial has been received, and account for the interest excited by the presentation. One of the circumstances mentioned by Dr. Richardson in returning thanks, is also well worthy of our attention. We allude to the fact that the list of subscribers included the names of some, with whom, in his pursuits he had been brought into collison; showing that the contests were all passed by, and that the warmest opponent may be the closest friend. We know well enough, how easily such collisions occur in the course of a scientific or professional career, and it speaks well for both parties when so pleasing a termination can be so pleasantly announced. Well would it be for science and her voteries—well for medicine—well for the medical profession, could all controversy end like this. There is no need for reticence in the search for truth—Dr. Richardson is himself a proof of this; there is no necessity for emulation to degenerate into rivalry; no reason why one worker should feel jealous at the success of his brother worker. If our profession would but learn this truth, the proceedings on Wednesday last would have a still more brilliant result, and none would more rejoice in such a lesson than they who apologized for it, and he whose labours occasioned it.

The other features of the meeting were necessarily to a great extent formal, and do not suggest any remark for a leading article. We need not, however, hesitate to thank Sir Thomas Watson for the graceful manner in which he moved a formal resolution—that of thanks to the chairman. It afforded us sincere gratification to hear the pleasant, clear, ringing tones of the eloquent baronet—the *quondam* lecturer, who has done so much to diffuse literary grace over scientific teaching. Many of our country readers will rejoice to hear that apparently, without exertion, Sir Thomas filled the room with his voice so exactly, that every syllable he said could be distinctly heard in the farthest corner—a feat which no other speaker on the occasion accomplished.

Notes on Current Topics.

The Public Health.

FROM the Registrar-General's return of births and deaths in London and thirteen other large towns of the United Kingdom, we select the following figures:—In the week ending Saturday, May 16th, there were registered in those towns 4736 births and 2864 deaths. The annual rate of mortality was 23 per 1000 persons living.

The annual rate of mortality last week was 21 per 1000 in London, 25 in Edinburgh, and 27 in Dublin; 22 in Bristol, 20 in Birmingham, 26 in Liverpool, 27 in Manchester, 25 in Salford, 29 in Sheffield, 24 in Bradford, 20 in Leeds, 20 in Hull, 21 in Newcastle-upon-Tyne, and 31 in Glasgow.

In London, the births of 2223 children were registered in the week, and the deaths of 1268 persons, which are less by 63 than the estimated number.

The deaths from zymotic diseases were 273, the corrected average number being 312. Ten deaths from small-pox, 56 from measles, 31 from scarlatina, 9 from diphtheria, 58 from whooping-cough, 38 from fever, 12 from diarrhœa, and 4 from choleraic diarrhœa were registered.

One hundred and ninety-nine deaths occurred from phthisis, 101 from bronchitis, 63 from pneumonia, 59 from diseases of the heart, and 148 from diseases of the brain and nervous system.

Three persons died from *delirium tremens*, 8 infants and 2 adults from syphilis, 3 from burns or scalds, 5 from drowning, 5 infants and 1 adult from suffocation, 8 committed suicide, and 3 were killed in the streets by horses or carriages.

Royal College of Surgeons of England.

AT the coming election of three Councillors, it is stated that Mr. Hodgson will not offer himself for re-election, but that both Mr. Partridge and Sir Wm. Fergusson will again seek the suffrage of the Fellows.

We think it highly probable that both will be re-elected. There will then be one vacancy to be filled up with new blood. The senior candidate is Mr. Erasmus Wilson, who has lately proposed a Fellows' Association, and whose high scientific attainments have won him a European reputation. There are, however, several other candidates, the most formidable being, perhaps, Mr. Simon, whose extreme liberal views on education have lately been so much commented upon, and may secure him the support of advanced reformers.

We also hear that Mr. Luther Holden will again be put forward on behalf of the Fellows by examination, and we have no doubt so favourite a teacher will poll many votes. The other candidates are Mr. Gay, Mr. Cooper, and Mr. Brooke.

New Hospital at Leeds.

THE Prince of Wales at Leeds has been the topic of the

week, and, therefore, our readers may expect a few lines about the new Infirmary which he opened as an exhibition.

The Leeds General Infirmary has existed for a century, but in spite of enlargement became too small. At length it was resolved to have a new building, and the one mentioned has been built at a cost of £120,000, from the designs of Mr. Gilbert Scott.

We are glad that the pavilion principle has been adopted, and from the accounts that have been published, the new Infirmary seems not only to be an ornament to the town, but to be constructed throughout with all modern improvements to fit it for the use to which it is destined. Each ward is about 130 ft. long, 30 ft. wide, 19 ft. high. The cubic space for each patient is to be 2500 ft., as only thirty beds are to be in the wards.

Great care has been taken to ensure abundant natural ventilation. The walls of the wards are of tinted cement, and their decoration has been left to Professor Lewis.

Alfred Hospital.

One of the most singular, and yet most useful directions ever given to a sudden outburst of loyalty, is that reported as one phase of the indignation, grief, and sympathy, produced by the dastardly attempt on the life of the Duke of Edinburgh.

To those who found no vent for their feelings, it was proposed to erect a "Memorial Alfred Hospital," as a token of gratitude that the Prince had escaped with his life. Upwards of £30,000 was raised "almost instantaneously," and, we presume, that the colony will shortly possess a new hospital. Such a building will be a lasting "memorial" of the sad event, as well as a new bond between the mother country and her colonies. Would that loyalty could more often be expressed in a form so certain to benefit the suffering portion of a community.

Hospital Reform.

Mr. Sampson Gamgee has published as a sixpenny pamphlet, a revised report of his speech on this subject, at the recent Birmingham Meeting of the Medico-Political Association. In reporting that meeting we gave so full an abstract of this important speech, that our readers are fully conversant with Mr. Gamgee's views. In Mr. Gamgee the association has an able and influential supporter, and we cannot help congratulating the general practitioners of the Midland Counties upon the firm stand they have taken, and the part they have played in making an association which seeks only the elevation of the profession, so completely successful.

Plymouth Workhouse.

Dr. Stallard has published in the *Western Morning News*, an account of a visit to this workhouse. He found 180 patients under one paid nurse; a number of beds without sheets; pauper patients bed-ridden, but without water-closet or night commode; together with other faults and negligences such as have so long disgraced our pauper infirmaries. We should hope that Dr. Stallard's visit may lead to immediate change.

Army Marriages.

A pamphlet has been issued on this subject by a writer who, under the signature "Brown Bess," gives much information on marriage in the armies of Europe. He thinks it practicable to encourage marriage and prevent vice in the British Army, without any great burden being thrown upon the tax-payer, and suggests that permission to marry should be given on condition of the soldier devoting his whole life to the nation in consideration of a provision for his wife and family. Combined with this plan he would stop the pay of men incapacitated by self-induced disease.

The pamphlet contains statistics that will also be acceptable to those interested in this subject.

Edinburgh Royal Infirmary.

Mrs. Buchanan, of Moray-place, who a little while ago gave £1000 towards the rebuilding of the Medical Hospital, has supplemented that donation by another of four times the amount. It has been resolved to dedicate a ward in the new hospital to the memory of Mrs. Buchanan's late husband. The managers could scarcely do less than acknowledge in some such way this munificent gift of £5000.

Scotch Returns of the Registrar-General.

During the month of April, in the eight principal towns of Scotland, the births of 3506 children were registered. The illegitimate amounted to 8·2 per cent. The marriages were 513, being 18 under the average for the same month during the last ten years, while the deaths of 2248 persons were registered in the same eight towns. This number is 124 under the average of the month in the last ten years.

Brougham.

Many are the aspects in which we might look at this remarkable man, who gained his own standing, and brought himself into the list of those whose names stand out in greatest prominence among the men of their own times, and may, perhaps, be remembered in the latest periods of the world's history. No one, however, is more remarkable than that in which he displayed the power of his oratory. Those who have not heard him can have but a faint idea of the effect he at times produced. There were many who excelled him in the graces and amenities of speech, but few, if any, who surpassed him in power. The occasions on which it was put forth were numerous, and have been most of them referred to in one or other of the obituaries which have appeared in the various publications of the day; but there is one to which as yet we have seen no allusion made, and which we ourselves had the opportunity of witnessing. It was in the House of Commons, some years after the noted trial of Queen Caroline, when his reputation had been undeniably established. The debate was on the repeal of the Corporation and Test Acts. It was introduced by the present Earl Russell in an able though not particularly remarkable speech. Peel was the ministerial leader, who exerted all his influence against the measure, and seemed for the time, by his soft and winning eloquence, to carry the House with him. While he was speaking Brougham sat on the other side of the table, apparently not over attentive. He was seen at one time writing a note, and sending to a member behind him; at another, conversing in a whisper with some one near him; and then taking a book from the table and reading it in the most argumentative portion of the Minister's speech. But all the while he was undoubtedly preparing himself for the strife. For, the moment Peel ceased speaking, he was on his feet; though another member caught the eye of the Speaker, and he was obliged to bide his time. At length his turn came, and as

he proceeded we were struck more and more with the force of his withering sarcasm, and the manner in which he held up his opponent to ridicule, amid the ringing and irrepressible laughter of the whole assembly. At that moment Peel rose and left the House, when the peals were simultaneously renewed. He then seriously enforced his arguments for the measure, and in the most earnest and solemn tones spoke of the awful profanation of which we were guilty in making the holiest rite of our religion a stepping-stone to office—not the meanest exciseman, not even the King's rabbit-warren keeper being received into place without having first received the sacrament, however profane he might be. This part of his address produced an almost breathless, death-like silence, and if he had but paused for a moment, we verily believe a pin would have been heard, had it at the instant been let fall on the table of the house. Never shall we forget the splendid contrast produced—the opposite emotions excited in minds not over susceptible, and in a comparatively insignificant space of time, by the great master-spirit of the scene.

Excision of the Clavicle.

The *Cincinnati Lancet and Observer* of January records a case in which Dr. W. W. Dawson, of the Commercial Hospital, excised the entire right clavicle for necrosis. He also removed a small point of caries from the outer surface of the first rib. Forty-six days after the operation the wound was completely healed.

The Contagious Diseases Act.

The inquiry of Lord Lifford, from the Government, as to the extension of the benefits of this Act to the civil population is of much interest to the profession, as it elicited a declaration entirely favourable to the principle of the measure, and an expression of confidence on the part of the authorities, in the results of our late experience of the working of the Act. No objection was urged by the Duke of Marlborough to the universal adoption of the Act, on the ground either of the inapplicability of the machinery to a more extended supervision, or on the ground of the interference with the liberty of the subject, of which we have heard so much.

The results of the working of the Act, as a protection to the army and navy are so explicit and definite, as to thoroughly convince practical men that the end has completely justified the means—that supervision of prostitution is not only feasible in practice, but defensible in principle.

We cannot take exception to the reason urged by the Duke of Marlborough to its extension to the civil population. The serious expense is an objection, which under present circumstances may be justly pleaded. It is, however, a difficulty which, now that the principle is accepted and the machinery provided, may and *must* be got over, and we cannot believe that the protection of the public health against the ravages of a pestilence far more noisome and enduring than small-pox can be indefinitely postponed on the ground of an expenditure, which is well incurred for so great a result.

The Coroner's Court in Ireland.

Undoubtedly the most essential steps towards the detection of crime, and the vindication of the law against riminals, are those which are initiated immediately upon the perpetration of the offence, and no retribution is so telling or so certainly just, as that which puts the apprehension of the actual culprit and the detection of his guilt, in the relation of cause and effect. A prolonged delay in the punishment of the criminal always tends to his ultimate escape, and is in itself, in some measure, an actual miscarriage of justice, and the signal failure of the prosecutions of the Clerkenwell assassins has taught us that the process of law which is "short, sharp, and decisive" is, so long as it is exercised with impassionate dignity, that which is most effectual. This much-to-be-desired attribute of unerring and immediate retribution has been, in the late Irish State trials, almost wholly overridden by the cumbersome paraphernalia of the law, as administered by those who were personally interested in the interposition of delays and obstructions. We have had a surfeit of legal arguments, writs of error, and all those ingredients of which a good bill of costs is made up, and, for result, we have had a languid and stumbling pursuit of the criminals, and after all a very partial success in their detection and punishment. In brief phrase, we have had too much law and too little justice.

We have digressed in this direction, to give point to the many imperfections of the Coroner's system in Ireland. Dr. Mapother, in a recent communication to the Dublin Statistical Society, exposed the total inefficiency of the Irish inquest system, and his animadversions have been effectively supplemented by a sensible editorial article in *Saunder's News Letter* of the 13th.

No investigation can be so complete and exhaustive, if it be properly conducted, as that which follows immediately on the occurrence which is its subject, and yet, we do not hesitate to say, that we believe the Irish inquest system to be more efficacious towards the concealment of crime than its elucidation. With a jury incapable either in mental capacity or education—as nine out of ten Irish Coroner's juries are—of forming any reliable opinion, the *role* of judge and jury is necessarily thrown upon the Coroner, and it is not detracting either from the capacity or the integrity of that official to say, that he is usually unfitted for so great a trust. A tribunal composed of idle boys, tramps, and labourers out of work, takes the safest course in echoing, submissively, what is put into their mouth by the Coroner and the police, and in the great majority of inquests, fortunately this way out of the difficulty is adopted, but we have not sufficient trust in the energy and sharp-sightedness of the Coroner, or the absence of prejudice in the police, to leave the initial investigation of crime to them. If no more reliable judges of the causes of violent death can be provided, the sooner the entire system is abrogated and the whole onus of investigation thrown upon the police, untrammelled by a nominal and totally unreliable investigation which may probably have failed to discover any suspicious element in the case.

Climate of Natal.

The Government of this colony has requested reports on its climate, from a number of resident medical men. The entire medical staff of the colony has reported on the subject, and with considerable unanimity. They recommend the climate as particularly suitable for persons of a strumous disposition, which temperament is, we are assured by some, very rare among the natives. As to advanced consumption there seems some difference of opinion. Some have seen cavitiesheal ; others have observed them speedily prove

fatal—an experience common to most climates. In the early stages of phthisis all speak well of the climate of Natal.

The King's Professorship of Medicine in the University of Dublin.

THE election to the Chair of Medicine, vacant by the resignation of Professor Banks as recorded in THE MEDICAL PRESS AND CIRCULAR some months ago, is fixed for the 24th of July, and has excited much interest in the profession in Dublin. The candidates who now contest the occupancy of the chair are, Dr. Henry Kennedy, Dr. William Moore, and Mr. Foot, and the respective claims of these gentlemen are very actively canvassed in medical circles. Dr. Kennedy is a Bachelor of Medicine of 20 years' standing, Physician to the only Fever Hospital in Dublin, and for 19 years a Fellow of the College of Physicians. He is very favourably known to the profession as an author, and as one of the most erudite and intelligent physicians in Ireland, and as possessing all that fluency of expression essential to a lecturer. Dr. William Moore is also a Bachelor of Medicine of the University, and a Fellow of the College of many years' standing, and as a Physician to Mercer's Hospital, and Pitt-street Hospital for Children, has enjoyed a large opportunity, which his writings prove that he has amply availed himself of. Mr. Foot is both in years and experience very far the junior of either of these gentlemen. He has been, as yet, unconnected with any Hospital, and, so far as we know, occupies no position higher than the post of Junior University Anatomist which should recommend him for election to so important an office. It may appear superogatory for us to urge that the Chair of Medicine in a University, whose special function is the conferring of medical degrees, cannot be worthily held but by a Professor who may, in the enjoyment of the entire confidence of students and the profession, reflect the lustre of learning and experience on the school with which he is connected. We understand that an effort has been and will be made, by persons whose influence is not to be lightly considered, to put the junior candidate in the succession to Professor Banks, over the heads of senior and, in our opinion, more eligible claimants. Whether the thirty-three Fellows of the College of Physicians, with whom the selection lies, will be induced to overlook these considerations and the high character which the University School of Medicine has hitherto enjoyed—whether the Board of Trinity College will consent to so suicidal a policy as regards their Medical Faculty, we cannot pretend to foretell. We have no difficulty, however, in anticipating the feeling which such a transaction would produce amongst the profession—a universal impression of the injustice and indiscretion of the step.

The Date of Commencement of the Medical Session in Dublin.

THE Council of the Royal College of Surgeons in Ireland have, at the suggestion of Dr. Mapother, Professor of Anatomy and Physiology in their school, invited a Congress of the Medical Teachers of Dublin for the consideration of a proposed alteration in the period of opening of the Winter and Summer Sessions. Hitherto the 1st of October has been adopted for the opening of the Anatomical Departments, but as the lectures have never commenced until the first week in November, that date came to be the real time for the commencement of study. Thus, heretofore medical work has been virtually delayed for a month later than it has begun in London. This arrangement was attended with many inconveniences. In the first place, the lists for the entry of pupils' names did not close until the 25th of November, so that the student who entered on that day has less than a month of study before the Christmas recess. Secondly, Easter, which is the natural interval between the Winter and Summer Sessions, causes an interruption in the courses of lectures, and virtually came to be the period for their termination. It is now proposed to commence the courses of lectures at an earlier period, and to terminate them for the winter on the 31st of March, leaving the months of April, May, and June for the Summer Session. The proposed alteration appears to be most necessary, for, as with many students, the date at which they *will* enter on their studies is the day on which they *must*, the existent system has afforded an inducement to abridge to the uttermost the regular term of medical education.

Medical Meetings in Dublin.

THE first Monday in June approaches this year with no less interest to the Profession in Dublin than on former anniversaries. On that day every year the election of the Council of the Royal College of Surgeons takes place, and as that occasion usually brings a large number of the provincial Fellows of the College to Dublin, the opportunity is taken for the meetings of the Irish Medical Association, and the Royal Medical Benevolent Fund Society of Ireland. The progress of the Superannuation Bill of Sir Colman O'Loghlen through Parliament, under which it is hoped that retiring pensions may be provided for Poor-law Surgeons, has created a special interest in the Association meeting this year, and as the arrangements for the usual annual reunion of the Profession are being made on a great scale, a large access of its provincial members may be expected.

THE President of the Royal College of Physicians of London has issued cards for a conversazione on the 10th of June.

THE Medical Council is to meet on the 24th June.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

THE distribution of prizes and certificates of honour was made yesterday at the School of St. Mary's Hospital, by the Right Hon. Robert Lowe, M.P. There was present on the occasion Mr. Powell, M.P., Mr. Mitford, M.P., Dr. Sieveking, Dr. Sibson, Mr. Berkely Hill, Mr. John Wilson, and many others, besides a large attendance of ladies.

The Report for the year 1867-'8 having been read, the following prizes and certificates were awarded :—

WINTER SESSION, 1867-8.

Scholarship in Anatomy, value £25.—Mr. Edmund B. Owen.

Prosectorship in Anatomy.—Mr. H. F. E. Harrison and Mr. R. B. Anderson.

Prize for Students of the First Year, value £20.—Mr. Edward J. Parrott and Mr. J. F. Parsons (2nd prize).

Prize for Students of the Second Year.—Mr. Arthur Lattey and Mr. Barton (2nd prize). Certificates of Honour.—Mr. Vines, Mr. Harris (Physiology), and Mr. Butler (Physiology).

Prize for Students of the Third Year.—Mr. Hardey. Certificate of Honour.—Mr. Harrison.

Prize for Practical Anatomy.—Mr. A. E. Hayes.

SUMMER SESSION, 1867.

Prize for Students of the First Year.—Mr. George Millson.

Certificates of Honour.—Mr. R. B. Anderson and Mr. Vines (Botany).

Prize for Students of the First Year in Comparative Anatomy.—Mr. Millson.

Prize for Students of the Second Year in Comparative Anatomy.—Mr. H. F. E. Harrison.

Prize for Students of the Second Year.—Mr. Charles W. Pratt. Certificates of Honour.—M. H. F. E. Harrison, Mr. Bilham (Midwifery), and Mr. Hardey (Midwifery).

Mr. LOWE then addressed the assembly. He observed that there were considerations which ought to moderate the feeling of success, and very much mitigate the feeling of failure, because, after all, the thing they were in search of was not reward, but knowledge. He expressed his fear that the object of many who went to the Universities was to gain £200 a-year, rather than to apply themselves to the acquisition of knowledge for its own sake, and he thought one besetting danger to education in this country was that it should become sordid. Another danger was that by increasing the number of subjects to be studied it would become superficial, and the teaching itself would be deteriorated in quality. Every school should be confined to its own peculiar province of teaching, and instead of requiring students to learn chymistry and botany at the medical school, that description of knowledge ought to be previously obtained. He condemned the system of compulsory attendance at lectures. If the lecturer was a good one there would be no necessity to use compulsion; if a bad one, then to force attendance would be obliging the student to waste his time. The system of medical education as a whole was, so far as organization and uniformity of movement were concerned, in a singularly unsatisfactory state. While it was beneficial to have contests between the competitors, nothing could be so bad as to have differences existing between the examining bodies. A competition between the members of the different boards, each being anxious to engage the students, and induce them to come to their teachings, must tend to degrade the standard of the medical profession, and he suggested that the existing Medical Council should be remodelled, its numbers reduced, and its members should be the most eminent men in the professions, and that the Council should have a superintending power, and thus be able to put an end to all examinations by competing bodies. He spoke in terms of high commendation of the profession for having learnt forbearance in the administration of medicine, and for the zeal with which they had devoted themselves to promote sanitary reform all over the country. He reminded the students that their duties were not fully performed when they had studied medicine, but that they were called upon to advance the science itself by continuing the researches made by those who had gone before them. Medicine, unlike mathematics, had no definite limits, but required perpetual investigation. After some remarks on the cattle plague—the pathology of which, he complained, had received more attention than had been devoted to diseases affecting humanity—he made some good-natured remarks on the somewhat intolerant spirit shown by the members of the medical profession towards each other, and expressed a hope that a little more liberality would be evinced by them with regard to their professional differences of opinion, and concluded by wishing success to the gentlemen who had obtained the prizes which would afford them an opportunity—more valuable than any personal success—of doing much good to their fellow-creatures.

SHORT NOTES ON NICE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—The following notes were hastily put together by me during a three weeks' visit to Nice, in December last, with a view to their publication at the time in THE MEDICAL PRESS AND CIRCULAR. Other occupations have, however, prevented me from looking over them until this moment. If you should think them worthy of a place in your journal now, they are at your disposal.—Yours very truly,

J. STANNUS HUGHES.

24, Westland-row, May, 1868.

Nice, December 26th, 1868.

Having been afforded an opportunity of visiting Nice during the winter season (one of the severest that has occurred in the South of France for many years past), I think it may not be out of place to give your readers, many of whom are constantly, no doubt, consulted on the subject of change of climate, my unprejudiced opinion respecting this far-famed place as a winter residence for invalids.

To begin. I must say that Nice has altogether answered my expectations as a winter abode for patients suffering under certain forms of ill health, but more especially from chronic chest affections, provided a proper selection of such cases is made, and that patients will strictly adhere to the directions of their medical advisers—of which more hereafter.

The climate of Nice is wonderfully mild and sunny as compared with ours. Thus, as a general rule, from nine o'clock in the morning until near sunset at this period of the year, an invalid can, generally speaking, enjoy the open air except when it rains, which is seldom the case, or when the "mistraàl" is blowing, or in other words, when the north-west wind, deprived of its moisture, whilst passing over the lofty snow-clad mountain ranges, and deflected, is blowing strongly from the east, or the south-eastern point of the Bay of Nice, or the Point of Var, at which periods the wind is so cold and searching, and so drying up, as it were, that it is almost intolerable, even to those who, like myself, have nothing amiss with their general health.[1]

When the mistraàl is blowing, it is often accompanied by clouds of dust, which add greatly to the trying and injurious effects of the cutting wind; but, as I shall presently point out, patients can very soon, by acquiring a knowledge of Nice, and by selecting, with the assistance of their medical advisers, a suitable locality, to a great extent avoid both the mistraàl and the dust.

The best possible way, in my mind, to describe Nice as a residence for invalids, is to divide it into three *departments.*

No. 1 *Department* comprises that portion of Nice which is on the border of the Mediterranean, and extends along the Bay of Nice from Var Point to Cape de Nice, at Villa Franca, a portion of which lies between the Rue de France and the sea, about one English mile and a quarter in extent, and which has been called the Promenade des Anglais, is a terraced road (planted with palm and other trees, and green hedge-rows) for pedestrians, equestrians, and those taking carriage-exercise. Along the land side of this beautiful and sunny promenade, first-class villa residences, hotels, and boarding-houses have been built, which command charming sea views. Connected with many of the residences on the Promenade des Anglais there are handsome gardens, studded over with orange, lemon, palm, and other trees in perfection.

At the first glance a visitor is inclined to think that this Promenade des Anglais is a very exposed situation, and that few invalids could consequently enjoy it, and I admit that was my own first impression; but experience soon proves that that is an erroneous idea, and that, as a general rule, even comparatively delicate people can saunter on this celebrated promenade from eleven to three o'clock on any given day in winter, provided it is not raining or the wind is not blowing strong, especially from the south-east, east, or south-west, when prudent invalids will seek shelter in either of the two other departments, or one or other of the inland roads, presently to be described.

The easiest way to give persons who have never been at Nice at this season of the year an idea of the advantages to be gained by a residence here, is to state, that on yesterday (Christmas Day),[2] the thermometer stood at 84° Farh., at 11 o'clock A.M., in the sun, and that the promenade on the beach, which was crowded to excess, was so hot from 12 to 3 o'clock, that the majority of the people there were obliged, like myself, to shelter themselves under thin white linen parasols, from the sun's rays, and were to be seen sitting on chairs and benches under the trees, enjoying the delightful weather, whilst numerous little yachts with their snow-white latine sails, were visible in the bay, the

1 I am told that the Nizzards or inhabitants of Old Nice dread the north-west wind, but the modern parts of Nice are, to a great extent, sheltered from that wind.

2 I am informed by Dr. Trousdell, a gentleman practising here, that on Christmas Day, 1866, the thermometer at Nice was, at twelve o'clock, 96° Farh. in the sun, and 62° Farh. in the shade.

day being as genial and cloudless as the finest summer's day in Ireland; but at Nice, as in many other southern climates, an invalid must be very cautious, indeed, in his movements. Thus, he should always saunter in the sun, carry a light overcoat on his arm, a linen parasol to use when necessary, and he should invariably return to his sitting-room before sunset, for even on the finest days, just about the time the sun goes down, the air suddenly becomes not only chilly, but damp, as it did on yesterday afternoon, when a dense dew or fog could be seen over Nice from the chateau[1], just as the sun was about to disappear. It is, however, right here to state, that generally speaking, soon after sunset, the atmosphere of Nice becomes agreeable and warm again.

There is a small region of Nice called the Lazarette, which is situated close to the sea beyond the Port of Nice, called the Port of Lympia, and between the Castle-hill and the Montboran (which latter divides Nice from Villa Franca), this little favoured spot is so sheltered from all winds, that some authorities, including Dr. Pantaleone, who first directed my attention to it, consider it equal to any other place along the Riviera. There are there many pretty villa residences, and the vegetation there is the best at Nice, consequently it is a good situation for patients suffering under pulmonary consumption, who are not troubled with an irritative cough.

Although that portion of the department of Nice, which I have attempted to describe under the head of No. 1, agrees as a residence with many people who come here for health, yet owing either to the tension of the atmosphere, the almost ceaseless roll of the waves on the shore, and the noise of the displaced shingle, or from some unknown causes, some people cannot sleep there, completely losing their "rest." Indeed, several cases have been related to me, by the leading physicians at Nice, proving that such is undoubtedly the case. Thus, for instance, Dr. Travis informs me, that a very distinguished and well-known Professor of Surgery, was at Nice sometime since for his health, and took up his abode at one of the first-class hotels on the Promenade des Anglais, but did not close his eyes for the following three nights. On the fourth night he was induced by Dr. Travis to change to an hotel at Longchamp (which, together with Beaulieu, being on the same level, although a little inland, deserves to be comprised in the Department No. 1), not more than between two and three hundred yards off. That night the worthy Professor slept uninterruptedly for eight hours, but not believing it possible that *he* could be kept awake by any of the assigned causes at the hotel on the Promenade des Anglais, he returned there, and paid for his incredulity by a sleepless night, when he was but too glad to engage apartments inland for the remainder of his sojourn at Nice.

With regard to the quarters of Longchamp and Beaulieu, they lie in a low ground under the level of all the other Champses, they are flat, having been originally marshy grounds, accordingly water is found everywhere, and looking at evening down on these quarters from the mountain at Cimies you see a slight fog or mist covering them. Now Dr. Pantaleone remarks in a letter to me on the subject, "that this circumstance, which would discredit this district in any other country, makes it at Nice, where, generally speaking, there exists an extraordinary dryness of the atmosphere, a preferable abode to cases mixed with sub-inflammatory action, especially cases of sub-acute pulmonary or bronchial affections."

The 2nd department of Nice is comprised of Carabacel, formerly a pretty village, at the foot of the Nice mountains, but which has of late, by the rapid extension of the buildings of Nice, become a part of the town. Carabacel is extremely well sheltered, and is away from the sea. At Carabacel, patients with a chronic dry cough will be benefitted by a residence; here there are some excellent hotels and boarding-houses, the latter being in their charges suited to people of all means; the hotels are more moderate in their charges than those in Nice itself, or on the Promenade des Anglais; some of the Pensions or boarding-houses at Carabacel receive boarders by the week or month, at wonderfully moderate prices. For some patients Carabacel is too relaxing, and for others it is too dull—being away from the many rational and healthful attractions of Nice.

The third and last department of Nice is that of Cimies, which is situated at a considerable height above Carabacel, and is both warm and bracing, the soil being dry from position and natural drainage, and being well sheltered by the Maratime Alps from cold winds. For invalids requiring both a dry and warm atmosphere Cimies presents many advantages—its disadvantages consisting in its extreme retirement and its distance from Nice; but, on the other hand, the scenery is most lovely, and the situation in every respect cheerful, and here there are as good, if not better, residences than elsewhere, being both handsome, commodious, and not very expensive, comparatively speaking. A residence at Cimies for an invalid would almost involve the necessity of keeping a carriage. In whichever of the foregoing departments, invalids, coming to Nice for the winter, may be induced to take up their residences, they cannot be too particular in the selection of bed-rooms, and sitting-rooms, which should invariably *face the South*, for rooms with other aspects are excessively cold in this region, being shut up from the genial influences of the sun, and therefore fires are required in them, especially at night-time, whilst fires are seldom called for in rooms facing the south, except indeed in unusually cold weather.

It is important for medical men to know that there are two excellent apothecary establishments in Nice, where prescriptions are accurately compounded by qualified Englishmen, according to the British Pharmacopœia.

With respect to the out-door healthful amusements of Nice, matters of unquestionable importance in a sanitary point of view, an excellent military band plays every day (weather permitting) either in the old or new town: in the latter, the place selected, generally speaking, is the beautiful and well sheltered modern "English Garden," at the commencement of the Promenade des Anglais.

Amongst the other healthful attractions of Nice, I must not omit to mention the beautiful pony carriages, for hire by the hour or day, which are light and graceful, and by no means expensive, considering the manner in which they are turned out.

Row-boats of all kinds, and small yachts, can be hired at a moderate tariff at the harbour of Nice, and for those who like the sea, boating here in calm weather is very enjoyable.

With regard to in-door amusements, the Prefect of the Maratime Alps, who has a palatial residence here, receives visitors every week in the season, and he and his lady, as I know by experience, are very attentive to strangers; they give two or three balls during the season, which are well worth attending, when health permits. There are two excellent English lending-libraries here, where every book of repute can be had. At the Massena Club there are matinees every week in the season, from three to five o'clock in the afternoon, to which members have the privilege of inviting ladies. For gentlemen who are able to enjoy them, the clubs of Nice are a great source of recreation; lately a Casino has been opened on the Promenade des Anglais, provided with reading, conversation, billiards, smoking, concert and ball rooms, and there is a table d'hote at a moderate charge every day at the Casino during the season.

The cheap wines which are made in the neighbourhood of Nice are tolerably good, the Bellet wine being about the best. The St. George, which appears to be much used, is an agreeable drink in warm weather when mixed with water; the wine in most use amongst the English visitors is Marsala, which is both good and cheap; but excellent wines, from all parts of the world, can be procured at Nice to suit the tastes and requirements of visitors, at

1 The chateau is a fort built on a hill, 800 feet high, over the port of Nice, which commands a very beautiful and extensive view of Nice and the surrounding country.

prices not extravagantly high. There are two English "Restaurants" here, where English dishes, and English ales, &c., can be had by those who prefer them to the Continental modes of living.

I have been favoured by three physicians of high reputation, at present practising at Nice, viz., Drs. Pantaleone, Travis, and Trousdell, with letters containing their experience of Nice as a residence for invalids, which they have kindly permitted me to publish, and which I now do, believing that they will prove valuable to the profession.

(To be continued.)

SURGICAL SOCIETY OF IRELAND.

APRIL 24TH, 1868.

(Continued from page 449.)

Dr. ADAMS, President of the College, in the Chair.

AXILLARY ANEURISM AND AORTIC PATENCY.

THE PRESIDENT said—I am commissioned by my friend Dr. Machonchy, of Downpatrick, to lay before you the sequel of a case he has published in the *Dublin Quarterly Journal of Medical Science*, February, 1868. The case was headed as one of *Axillary aneurism and aortic patency*. The patient, Hugh Grant, aged 17 years, a farm-labourer, was admitted into the county Down Infirmary, 2nd of October, 1867; he was a small delicate looking lad, having a pulsating tumour in the right axilla about the size of a hen-egg, the whole arm was swollen, and of a colour approaching to livid. The tumour must have irritated, or pressed upon, the neighbouring axillary plexus of nerves; there was not only paralysis of the arm, but loss of sensation also. The pulsation of the brachial and radial arteries was weak, while on the opposite side the pulse was jerking, and abnormally pronounced. There is most remarkable visible pulsation in all the large arteries of the body; a loud double bruit de soufflet is heard, with the heart's action louder in the vicinity of the aortic opening than elsewhere, completely masking or replacing the second sound of the heart; this sound is propagated along the arteries with a gradually increasing intensity; the pulse is sharp and jerking, over 120, and seldom counting the same for two consecutive half minutes.

The history of his case was, that nine days before his admission into hospital, after a heavy day's work, mowing or using the scythe, he first observed the tumour in the arm-pit the size of a small hen-egg. He believes the swelling has since much increased in size. His state on admission was such that Dr. Machonchy feared that the cardiac and general derangements would bring about a fatal result before danger became imminent from the aneurism, so that at first treatment was directed to the cardiac symptoms. After six weeks being in hospital, the heart's action became more equable; his strength was improved, still his pulse never could be felt less than 120 since his admission.

On the 12th of November the brachial artery was found to have ceased pulsating altogether. This must have happened during the few days previously, probably from the slipping of a clot in an examination and manipulation of the tumour; the pulsation, however, was as brisk as ever in the aneurism.

During the last week in December it became evident that to longer delay active interference with the aneurism was inadmissible, as the rapid increase of size, and the thin feel of the covering, alarmed him with the idea that it was about to become a diffused aneurism. Having ascertained that the current could be stopped in the subclavian for two minutes without any increase of cardiac irritability, I determined to ligature the subclavian in the third stage of its course, which, with the assistance of Dr. W. Mac Cormac, of Belfast, and Dr. E. Nelson, was speedily accomplished on the 7th of December. On the 20th December, and the fourteenth day after the operation, the patient had an attack of epistaxis.

December 31.—Since the fourth day after the operation the pulse has been pretty constantly 104, only being 20 beats below the average at what it rated before operation; the tumour is now smaller than an hen-egg, hard, and pulseless; the arm is reduced to its normal size, there is a slight return of sensation in the forearm; when it is touched he feels a tingling in his fingers, the muscles, as yet, have not regained any power. From this period up to the 20th of January, he seemed daily to gain strength, but on the evening of this day his symptoms changed suddenly for the worse. The change seemed to be the result of mental depression caused by bad news he received, viz., that his father had emigrated and left him without seeing him, or leaving any provision for his future maintenance. On the 31st of January he died apparently from mental depression and bodily exhaustion.

Post-mortem.—The diagnosis made by Dr. Machonchy, as to the thin condition of the aneurismal sac, and as to the organic cause of the aortic patency, is proved to have been quite correct by the examining of the specimen which is here laid before this meeting. The walls of the aneurism are seen to be very thin; the contents were not composed of fibrine in concentric layers, but of coagulated blood. The heart seemed normal for a person of only 17 years of age, as to its size and proportions; there was no deposit on the lining membrane of the heart or arteries whatsoever, or nothing observable except that the valves of the aorta were completely disorganised; an atheromatous deposit occupied the free edge and surfaces of the aortic valves, and formed soft tumours nearly the size of a filbert, which must have during life floated to and fro through the area of the aortic opening. It may be seen that the disorganised valves were totally inadequate to perform their office; above the aneurismal sac the subclavian artery, both externally and internally, was perfectly healthy; when the artery left the lower part of the sac it was completely impervious and contracted. The axillary plexus was connected with the aneurismal sac, and almost identified with its walls. I have presented the specimen to the Museum of the College of Surgeons to be preserved, and with a request to the Curator that he should further prosecute the dissection, and I give his report of it which is as follows:—"I have examined carefully the specimen, and find that about three and a-half inches above the aneurismal tumour, there is a perfect obliteration of the artery for about an inch in length. Below this, for nearly three and a-half inches, the artery was quite free, and evidently carried blood up to the time of death. And just close above the tumour, apparently without any intervening space between them and the tumour, there were three arteries given off from the main trunk, the diameter of the largest of these was about one-sixteenth of an inch, the others were about the size of crow-quills, these were given off quite close together, at the same level above the aneurismal tumour: there is no positive evidence from the specimen that these arteries communicated with the sac.—JOHN BARKER."

The great question before the society appears to me to be whether operative surgery is in danger of being brought into disrepute by the tying of a large artery of an extremity, with a view to cure an aneurism, when there exists in the patient the organic disease which Sir Dominic Corrigan, I believe, was the first to describe, and has denominated permanent patency of the aortic valves. As to the case before us, it would appear that nothing could go on for a time after the operation better than the aneurism; the ligature came away without any hæmorrhage in the usual time; the aneurism was in process of perfect cure; the paralysis was better; the pulse fell from 120 the day after the operation 20 beats, and the report for 14 days was favourable, when depressing causes and mental distress seem to have produced asthenic symptoms, and the patient died in an exhausted state. It must, however, be recollected that even without the influence of such causes as acted here, that death in cases of this disease of the aorta frequently occurs in this manner. The maxim, much commended by the celebrated Percival Pott, "*anceps remedium est melius, quam nullum*," applies in this case. For my part, I believe that in cases of an aneurism of one of the large arteries of an extremity, when complicated with the alteration of the aortic valves called "permanent patency," our prognosis must be most unpromising. I do not dread the refluent stream after the ligature has been made, as the source of mischief likely to ensue, but I have always seen the general health of a patient with inadequacy of the aortic valves, to be very delicate, and generally have observed such patients to be very bad subjects for any surgical operation whatever. I take this opportunity of laying before the society the preparation of a heart which had this atheromatous and soft warty condition of the aortic valves, which exactly resembled the appearances noticed in Dr. Machonchy's case. The patient had a popliteal aneurism, which, notwithstanding that the existence of the aortic disease was well diagnosed, still the operation for the popliteal aneurism was proceeded with; but the result was unfortunate. The patient was weak and had adynamic symptoms after the operation, and the wound made to tie the artery in Scarpa's space, near the groin, did not heal, but, on the contrary, abscesses formed in the thigh and leg, and the patient after a month fell a victim to the extensive suppuration which ensued. There might have been something in the operation itself which, in this case, was not happy; and

there might have been delay in dissecting down on the artery; but the extensive suppuration, in my opinion, in this case, which occurred now many years ago, arose from an unhealthy asthenic state of the system, caused by the valvular disease in question. I see present by me my colleague, Dr. Fleming, however, who may, perhaps, relate to the society the case of a patient of his in the Richmond, who had a carotid aneurism, and this was complicated, he thought, with this very condition of the aortic valves; yet the favourable result of the operation in this case may, perhaps, be considered as bearing operative surgery out in not being deterred from deligating a large arterial trunk, even when the aneurism, for which the operation is resorted to, is found in a patient who has also the unhealthy complication of the disease of the aortic valves we are alluding to. All I have to say is that there may be cases of this kind in which the deligation of a large artery may be deemed necessary, but I would wish to express my conviction that such cases are most unpromising subjects for active surgical interference, and are only to be justified, if at all, by Percival Pott's maxim, "*anceps remedium est melius quam nullum.*"

Dr. FLEMING said the age of the individual referred to by the President, was three times that of the patient in Dr. Machonchy's case. He had a carotid aneurism of the left side, occupying the whole of the space between the angle of the jaw and the clavicle. No second opinion could be entertained as to the existence of aortic patency. He had repeated attacks of syncope, great prostration; notwithstanding such unpromising symptoms the carotid was tied, and with success; and he had seen the man two or three years afterwards, at Holyhead, apparently in very excellent health; the physical signs alluded to, of aortic disease, being, however, distinctly marked. The artery was tied in the first portion of its course. It was of enormous depth, and he had considerable difficulty in securing it. He should add, that there were casts of the patient at Richmond Hospital, both before and after the operation. In many cases when aneurism was cured, particularly in popliteal aneurism, the site of the aneurism was a permanent tumour. This was also the case with the patient to whom he referred. The whole of the tumour did not subside; but all pulsation ceased, the ordinary signs of aneurism disappeared, and the tumour became quite soft.

Dr. CROLY observed that the late Mr. Colles, in dealing with this subject, distinctly stated that if the *sac* of the aneurism collapsed, when the ligature was applied to the artery leading to it, it was not a favourable symptom.

The PRESIDENT observed that on a former occasion he had mentioned the great importance of illustrating the cases brought forward, by photographs and casts. He had also mentioned that it was possible he might be able to procure a copy of the beautiful photographs of surgical cases during the late American War, which had been exhibited in Dublin lately by some clever and enterprising American surgeons. He did not despair of obtaining them. Dr. Mapother had written to America for them, and it was probable the request would be complied with. The President then alluded to a book which he had received from the Surgeon-General of the United States, and which he now presented to the College, containing valuable illustrations of surgical cases. One of these especially attracted his attention. It was the case of a penetrating wound of the abdomen, of which two views were given. By placing a glass behind the patient, a reflection of the posterior view of the wound was obtained; the orifice of penetration and the orifice of exit in the cases of gun-shot wounds were very different, and it was interesting to obtain a view of both in the same drawing, by this very ingenious contrivance. There were other illustrations showing different cases of successful operations in the amputation of the hip-joint. He remembered telling one of the American surgeons of an observation of the late Surgeon Wilmot, one of the best surgeons in Ireland, in his day, that in his experience in the case of artizans in Dublin, who got compound fractures of the thigh, there were very few recoveries; and he asked the American surgeon, how he could explain the remarkable success of the treatment of compound fractures of the thigh during the American War. The reply was, that the metropolitan artizan could not be fairly compared to the American soldier. The men in the army were well fed, well taken care of, both before and after the operation, and were the finest men, as to bodily health, that could be found. Injuries were therefore sustained by them, under which the broken down metropolitan artizan would sink. The President then brought forward a remarkable case of chronic rheumatic arthritis, which will appear in our next number, with his concluding observations.

Correspondence.

THE MEDICO-POLITICAL ASSOCIATION AND MEDICAL REFORM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I do not know what the aims of the recently formed "Association" may be; but I would suggest that it should strive to attain—(1) One degree called M.D., similar to the Paris one, granted by State examiners in different parts of the kingdom; (2) Payment of medical officers of the Poor-law in the same manner as clergymen, &c.—*i.e.*, a sum sufficient to enable them to devote their whole time to their important duties; and (3) appointment to all public medical situations to be made by open competition (*concours*). Lastly, the Association should encourage practical medical men to become members of Parliament more than they have hitherto been. Has the Association the idea of trying for such grand aims!—I remain, sir, yours, &c.,

CHARLES DRYSDALE.

Southampton-row, W.C.,
May 18th, 1868.

DEAF MUTISM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The medical history of deaf mutism, or the kowledge of its beginning, not being known to the profession, will you oblige me by inserting in your columns the following correspondence, showing an official obstacle to the first step in acquiring information necessary to the establishment of fundamental principles, in order that we may adopt curative means for the deaf mute.—I am, Sir, faithfully yours,

WILLIAM PARKER.

Bath, 19th May, 1868.

[Copy.]

To George Graham, Esq., Registrar-General, Somerset House, London.

SIR,—Permit me respectfully to address you in behalf of the deaf and dumb in this country. Having studied their condition during the last thirty years, and finding that no medical treatment to cure them is adopted either before or after admission into the deaf and dumb institutions, I beg to suggest the necessity of registration of infants at a month old, whether deaf or not. By this plan the first and only means of acquiring their real state can be known.

Dr. Scott, of 30 years' experience of the Exeter Deaf and Dumb Institution, writes to me and says:—"*The deaf mutes which are received are supposed to have exhausted curative means, and my attention has been almost solely directed to the best means of instructing them.*" If we do not begin at the beginning of life, it is impossible to have correct and efficient statistics and proper means adopted to cure them, particularly as disease of the ear, the result of infantile diseases, namely, teething, scarlet fever, small-pox, whooping-cough, and measles, is the chief cause of the calamity. The public should commence their knowledge of the deafness at a month old of every infant, and the medical profession should begin their curative process as soon as the deafness from the named diseases arises at two or three years of age. It is contended that no more attention comparatively is now paid to this class of sufferers, than was paid to the lunatic before M. Pennel's liberation of their chains, forty years ago. The absence of any register and the absence of any medical treatment of deaf and dumb infants, are palpable deficiencies and evidences of want of proper regard of them. This has not been disputed by the profession, on the contrary, full concurrence by professional men has been awarded to my propositions, and a hospital for their cure should be established in a central situation, near a railway, of a mild and healthy locality.—I have the honour to be, Sir, your obedient servant,

WILLIAM PARKER, M.R.C.S., L.A.C.

2, Lynwid Villa, Bath, 4th May, 1868.

The proposed registration is suggested to be entered in the present Register by an additional perpendicular line, headed "Hears," "Deaf," and noted H. or D. as the case may be.—W. P.

5th May, 1868.

SIR,—I have to thank you for your observations on the deaf and dumb in this country. I cannot adopt your suggestion as to the record to be made in the Register, without an amend-

ment of the present Civil Registration Act relating to births.—I have the honour to be, Sir, your faithful servant,

GEORGE GRAHAM, Registrar-General.

W. Parker, Esq.

THE TWENTY-FIFTH REPORT OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have received the twenty-fifth report of the Council of the Royal College of Surgeons in Ireland, and I have also read Dr. Hamilton's letter in your last number.

As a Licentiate and Fellow of the College, may I take leave to say the report appears to be a meagre and unsatisfactory document, and does not contain any single suggestion for the improvement of our profession.

I had hoped (in common with many of my brethren, Fellows of the College, residing at a distance from Dublin) that some mention would have been made of an intention to apply for a new charter.

In common justice to us, whose monies have been received by the College, we should have the privilege of voting at elections, either by proxy or voting-papers; as matters are now arranged, we have no voice whatever in the government of the college.

In the financial statement I observe the sum of £261, 4s. 3d. expended for school expenses. I am at a loss to understand why College funds should be so expended, and why the College school should be supported out of College funds, to the detrement of the private schools in the City of Dublin.

I hope some independent Fellow of the College will take these matters in hand, and bring them before the annual meeting on first Monday in June, which I would certainly do could I be present.—Your obedient servant,

THOS. H. BABINGTON, M.D., F.R.C.S.I.

Londonderry, May 22, 1868.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 19th inst., viz. :—

Messrs. W. J. Mason, Sudbury, Suffolk; T. C. H. Spencer, L.R.C.P. and L.S.A., Wokingham, Berkshire; Henry Gould, L.S.A., Gravesend, and R. E. Grigson, Watton, near Thetford, Norfolk, students of Guy's Hospital; D. K. Robertson, L.R.C.P. and L.S.A., Westbourne-park Villas; J. E. Pierce, L.S.A., Gelwern, near Abergavenny; D. H. Goodsall, Gravesend, and F. W. Langworthy, Plympton, Devon, of St. Bartholomew's Hospital; W. P. Lee, Sydney, New South Wales; H. H. Spratt, Wairarapa, New Zealand, and J. W. Harrison, Barnsley, Yorkshire, of the Middlesex Hospital; E. B. Owen, Cleveland-square, Hyde Park, of St. Mary's Hospital; R. A. Jamieson, Pekin, China, of the Cork School; F. B. Besly, St. Martin's-court, Leicester-square, of the Charing-cross Hospital; F. T. Le Tall, Woodhouse, near Sheffield, of the Sheffield School; J. A. Rayner, Highbury New-park, of King's College; and E. W. Spragge, Toronto, Canada, of the University College and Toronto Schools.

On the 20th inst. :—

Messrs. A. G. Cuffe, Woburn-place, and E. A. Phillips, Eling, Hants, students of University College; Frederick Waterhouse, Bolton, Lancashire, of the Leeds School; Ratcliff Nuttall, Bury, Lancashire, of the Manchester School; J. C. Thornicraft, Clapham, of the Charing-cross Hospital; John Johnson, L.S.A., Darlaston, of the Birmingham School; Edward Stephens, Ilminster, of the Liverpool School; M. W. Rice, M.B. and C.M. Edin., Sloane-street, of the Edinburgh, St. George's, and Middlesex Hospitals; John Glanvile, Wedmore, Somerset, of St. Bartholomew's Hospital; F. C. Vines, L.S.A., Vasse, West Australia, of the Dublin School; Edward Young, Hawkhurst, Kent, of King's College; and Armand Leslie, Battersea-park, of the Middlesex Hospital.

REPORT OF MEETING OF COMMITTEE OF COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.—Held at Birmingham, April 23rd, 1868.—Resolved—1. That the following gentlemen be appointed officers of Sections :—Medicine.—*President*, Sir W. Jenner, Bart., M.D., F.R.S., London. *Secretaries*, E. L. Fox, M.D.Oxon., Clifton, Bristol; William Roberts, M.D., Manchester. Physiology.—*President*, Professor Rolleston, M.D., F.R.S., Oxford. *Secretaries*, W. L. Church, M.D.Oxon., London; Professor Beale, M.B., F.R.S., London. Surgery.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B.Oxon., Leeds; W. Stokes, junior, M.D., Dublin. Midwifery.—*President*, Sir C. Locock, Bart, M.D., F.R.S., London. *Secretaries*, J. G. Wilson, M.D., Glasgow; J. G. Swayne, M.D., Clifton, Bristol. State Medicine.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D.Oxon., Manchester; T. J. Dyke, Esq., Merthyr Tydvil. 2. That a Sub-committee be appointed to consider and to report as to the proper subdivision and organisation of the various Sections, and the best mode of appointing their officers; and that the Sub-committee be requested to observe and report upon the working of the different sectional meetings at Oxford. The Sub-committee to consist of the following gentlemen, with power to add to their numbers :—The President; the President-elect; the President of the Council; the Treasurer; the General Secretary; the Officers of Sections; Mr. Cordy Burrows; Dr. Paget; Dr. Edward Waters; and Dr. Wilkinson. 3. That the report now read from the Committee for considering the Representation of the Profession in the General Council of Medical Education be adopted; and that the members of the Sub-committee, with the President of the Council, be appointed a deputation to wait upon the Medical Council.

REPORT OF THE SUB-COMMITTEE APPOINTED TO CONSIDER THE REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.—The sub-committee, in accordance with their original recommendation, supported by the almost unanimous vote of the Association, agreed to at the anniversary held in Dublin in 1867, are of opinion that the profession will not be adequately represented in the General Medical Council, as at present constituted, by less than eight representatives, to be elected by the registered members of the profession resident in the United Kingdom of Great Britain and Ireland, with the exception of those on active service in the army and navy. The sub-committee are of opinion that the addition of eight members to the General Medical Council as representatives of the profession generally, far from embarrassing the proceedings or militating against the influence of the Council, will, on the contrary, have the opposite effect. The sub-committee entertain no doubt that the profession, on which the payment of the representatives of the various medical and surgical corporations and of the nominees of the Government at present rests, will willingly pay the additional cost of their own representatives. At the same time, the committee think the propriety of paying their own representatives by the various universities, colleges, and corporations, is an object for the consideration of the council. The sub-committee are of opinion that, if the Council, in consequence of the addition of the members to be elected by the profession, should deem it advisable to recommend a diminution of the number of the representatives of the corporations, a corresponding reduction may then be made in the representatives of the profession.

QUACK DOCTORS AND THEIR VICTIMS.—Last week an inquest was held by Mr. Humphreys at the Black Bull Tavern, Lever-street, St. Luke's, on the body of a married woman, named Susannah Irwin, 38 years of age. Alfred Irwin, the husband, deposed that on Sunday week the deceased felt ill, and the next day she went for a doctor, but did not see him. Witness thereupon sent for Mr. Denase, a French gentleman, who practised as an herbalist and botanist. He saw the deceased, and at five o'clock he came again, bringing with him two bottles of medicine and a large number of pills. He told her to take a glassful of the contents of one bottle every half hour, and of the other every hour, and gave her 26 pills to take at frequent intervals during the night. By six o'clock on Tuesday morning she had taken the two bottles of physic—33 doses—and 26 pills. Not feeling better, she sent for the police surgeon, Mr. Garrard. She had a miscarriage after she took the medicine. He did not think that she would take medicine to procure miscarriage. Guillaume Denase—I was an herbalist, but I am now carrying on business as a botanic chemist. On Monday last I was called twice to deceased, because Dr. Bewley could not attend her. I was related to her, and at five o'clock I took her her medicine in a friendly manner. She was suffering from a pain in the chest, and from inflammation of the chest and lungs altogether. I prescribed half an ounce of yarrow, half an ounce of centuary, the same quantity respectively of agremony, St. John's wort, and ginger-root, and a quarter of a teaspoonful of powdered cloves, all infused in water. I ordered a wineglassful to be taken every half hour. I ordered her pills at the same time. They consisted of 20 grains of cayenne pepper, 20 grains of lobelia powder mixed with honey. I could have taken the whole dose myself. I also ordered her a mustard poultice, a

hot bath, vinegar clothes, hot water bottles to her feet, and plenty of blankets. I do not understand accouchements, but I never asked whether she was *enceinte*, and I would have treated her in just the same way, whether or no. Mr. F. A. Grant, pathological anatomist, said that he had made a post-mortem examination of the body. Throughout the whole of the organs there was no trace of inflammation or of any disease. There had been a miscarriage. There was no natural cause for death. The medicine and the treatment of Mr. Denase had caused the miscarriage, the exhaustion from which resulted in death. The Jury returned the following verdict :—That the deceased died from exhaustion resulting from a miscarriage, which had been brought on by medicine taken inadvertently that had been ignorantly prescribed for her by an unqualified practitioner; and the jury desire to express their regret that ignorant and unqualified practitioners are allowed to prescribe for patients to the danger of life.

CONTAGIOUS DISEASES ACT.—A memorial has been presented to the Lord President of the Council, signed by Dr. Alderson, F.R.S., president of the Royal College of Physicians, Mr. J. Hilton, F.R.S., president of the Royal College of Surgeons, and other distinguished medical men, to the effect, that in the opinion of the memorialists, the principle of the Contagious Diseases Act, 1866, should be extended to the civil population by providing proper hospital accommodation for women suffering from these diseases, and giving power for their detention in hospitals. These measures, it is urged, do not involve a system of licensing prostitution ; they are intended to be purely restrictive and sanitary in their operation. The objects of the memorial are heartily approved by Dean Stanley, the Vice-Chancellor of Cambridge and Oxford, Canon Selwyn, and by Admiral Sir W. F. Martin, Major-General Murray, and Sir John Bowring.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—Examinations, 1868.—Senior Scholarship in Medicine, Surgery, and Midwifery—A. F. Field, T. H. Hendley. Senior Scholarship in Anatomy, Physiology, and Botany—H. Alder Smith, A. E. Cumberbatch ; Bentley prize—W. Deane Butcher; Kirkes medal—A. F. Field. Practical Anatomy, Senior—Foster prize—A. E. Cumberbatch, H. Alder Smith, C. F. Gray, F. H. Bodmin, G. P. Skrimshire, S. G. Sloman, W. G. Lowe, G. S. Payne, P. B. Stoney, H. Symons ; Wix prize—A. F. Field; Hichens prize—A. F. Field. Practical Anatomy, Junior—Treasurer's prize—W. J. Walsham; Examiner's prize—A. H. G. Doran, C. J. Newton, G. A. Phillips, W. R. Smith.

THE VOLUNTEER MEDICAL SERVICE AT WIMBLEDON.—The spring meeting of the National Rifle Association was held at Willis's Rooms on Thursday, May 21st—his Royal Highness the Duke of Cambridge in the chair. The Council had omitted in its report to take notice of the dissatisfaction which exists among the medical officers, with regard to the composition of the hospital staff at Wimbledon. Dr. Carr, therefore, moved, and Mr. Squire seconded, a resolution to the effect that, in the opinion of the meeting, the volunteer medical staff at Wimbledon should consist of, at the least, one full surgeon, and one assistant-surgeon, and that the hospital for volunteers, and that for the regular forces, should be distinct. The distinction being that which exists between two regimental hospitals in the field, the senior army surgeon would have the position of principal medical officer as in the regular army. An irrelevant discussion arose as to the fate of any volunteer who might sustain a gunshot wound ; the lay parties to the discussion being evidently unaccustomed to the amenities which obtain in the higher walks of medical practice, otherwise they would have known that in every case of doubt or difficulty, or of exceptional importance, medical men are only too glad to avail themselves of the special experience of their compeers. It is somewhat a matter of surprise that its honorary surgeon did not advise the Council of the National Rifle Association to that effect. The motion was withdrawn, his Royal Highness the Duke of Cambridge stating that the matter seemed to him to involve general questions of volunteer organization, and was, therefore, one for the consideration of the War-office.

BOOKS, PAMPHLETS, &c., RECEIVED.

Medical Evidence in Railway Accidents. By John Charles Hall, M.D. London : Longmans and Co.

On Consumption and its Treatment by the Hypophosphites. By John C. Thorowgood, M.D. London : John Churchill and Sons.

A Key to Galloway's First Steps in Chemistry. London : John Churchill and Sons.

The Journal of Anatomy and Physiology. By Professors Humphry and Turner.

The Pacific Medical and Surgical Journal.

The Essentials of Materia Medica and Therapeutics. By A. Baring Garrod, M.D., F.R.S. London : James Walton, Gower-street.

A Scheme of Medical Tuition. By E. A. Parkes, M.D., F.R.S. London : John Churchill and Sons.

Consumption and its Cure. By R. G. Watts, M.D. London : Simpkin, Marshall, and Co.

Materia Medica and Therapeutics. By J. Forbes Royle, M.D., F.R.S., and F. W. Headland, M.D., B.A. London : John Churchill and Sons.

The Morbid States of the Stomach and Duodenum. By Samuel Fenwick, M.D. London : John Churchill and Sons.

Cancer of the Uterus and other parts. By A. Wynn Williams, M.D. London : Henry Renshaw, Strand.

Visceral and Hereditary Syphilis. By Francis Oppert, M.D., M.R.C.P. London : John Churchill and Sons.

An Essay on Vaccination. By C. T. Pearce, M.D. London : Balliere, Regent-street.

On Certain forms of Hypochondriasis. Translated from the German of Dr. Pickford. London : H. Balliere, Regent-street.

The Royal London Ophthalmic Hospital Reports. Vol. VI. Part II.

Transactions of the Obstetrical Society for 1867.

Bible Animals. Part V. By the Rev. J. G. Wood, M.A.

A Handbook of Vaccination. By Edward C. Seaton, M.D. London: Macmillan and Co.

Annual Report of the Newcastle Pauper Lunatic Asylum.

First Principles of Medicine. Sixth Edition. By Archibald Billing, M.D., F.R.S., &c. London : Bell and Daldy, Covent-garden.

Army Marriages. By Brown Bess. Belfast : Alex. Mayne.

The Fitness of Natal for Consumption. By R. J. Mann, M.D. Special Commissioner.

Irritability. By James Morris, M.D., F.R.C.S. London : John Churchill and Sons.

Education and Training. By a Physician. London : John Churchill and Sons.

Prospectus of the Electro-Chemical Baths. By J. Caplin, M.D.

JOURNALS.—Hardwicke's Science Gossip, the Monthly Homœopathic Review, the Pharmaceutical, Dublin Quarterly, Edinburgh Medical, Medical Archives, New York Medical Record, Le Mouvement Medical la Sante Publique, L'Union Medicale, La Presse Medicale Belge, the London Student, Northern Star, Birmingham Journal, Sheffield Daily Telegraph, Shoreditch Advertiser, Brighton Herald, Journal de Medecine, La Medecine Contemporaine, &c., &c.

NOTICES TO CORRESPONDENTS.

W. B. S., Disley.—The result of the election is not publicly known until we have gone to press. It will appear in our next.

UNITED HOSPITALS ATHLETIC CLUB.—The sports by the members of this club take place in the grounds of Beaufort House, on June 11 and 12, as per announcement in our advertising columns.

PUER.—As a qualification for practice, the London Society of Apothecaries.

The following communications have been received, and will appear as early as space permits:—

On some points connected with the present aspect of Medicine and Therapeutics, by Dr. W. H. Day, M.R.C.P.

Clinical Lecture on cases of Anomalous Rheumatism, by C. Handfield Jones, M.B.Cantab., F.R.S.

On the Treatment of Hay-Fever, by James Yearsley, M.D.

Clinical Lecture on Insufficiency of the Aortic Valves, by S. Jaccoud, M.D. Translated by John Cockle, M.D., M.A.

Hospital Report—King's College, by Dr. Beale.

On the Comparative Actions of various Disinfecting Agents, by Dr. Berenger Feraud, Surgeon to the French Imperial Army.

Notes on Acne Rosacea, by H. S. Purdon, M.D.

Occlusion of Vagina, by Dr. James Martin, Portlaw.

Dismemberment of Pharmacy (second paper).

The Treatment of Hæmorrhoids, by J. Mulvany, M.D., Assistant-Surgeon Royal Navy.

MEDICAL CLUB.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As I have recently received a large number of letters of inquiry, respecting the Medical Club, and lest any should inadvertently have remained unanswered, I hope you will allow me a short space in your columns to announce that the Club has removed from the temporary rooms hitherto occupied in Pall-Mall, to more central and convenient premises, situated at No. 9, Spring-Gardens, overlooking Trafalgar-square.

The new club-house will afford increased and improved accommodation for the members, and has been placed under the management of Mr. Webb, Jun., late of the Carlton Club, who will reside on the premises. I have every confidence the comfort and convenience of the members will receive Mr. Webb's constant and careful attention, and that all will have good reason to be satisfied with the changes that have been made.—Your obedient servant,

LOBY MARSH, M.D., Hon. Sec.

May 20, 1868.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Would some of your subscribers kindly inform me of the chemical composition and uses of putty powder, and also what acid will write *white* on blue paper, and they will oblige JUVENUS.

[POLISHER's putty powder is peroxide of tin. Glazier's putty powder, prepared chalk. Liq. potassæ will decolourize blue paper.]

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE, 3 1868.

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Lecture.

CLINICAL LECTURE ON THREE CASES OF ANOMALOUS RHEUMATISM.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.,

PHYSICIAN TO ST. MARY'S HOSPITAL.

Gentlemen,—As medical practitioners engaged in the work of conserving the health of human beings, as far as we are permitted, we cannot regard disease otherwise than as an anomaly; a result proceeding in some way or other from infringement of the laws of health. I would not contend, however, but that from a stand-point of wider view than that of the mere physician disease may be considered as a necessary part of that great providential scheme under which we are all placed, of which the main intent, so far as our dim ken can read it, seems to be the subjecting man to a probation more or less severe, to a testing which shall show what each individual is, whether dross or ore. Of our diseases it may often be said, with the older divines, Πάθημασα μαθηματα, and if they fulfil so high a purpose, they cannot be considered as unimportant or noxious accidents, interrupting an otherwise harmonious arrangement. But returning to my original statement, I wish to remark to you that, although disease be itself an anomaly, yet it has a regular, lawful, and orderly method of procedure, which it ought to follow, and which, in the great majority of cases, it does follow more or less closely. Deviations from this rule or norm of pathological action are, however, by no means infrequent, and have long attracted the attention of physicians. They constitute the so-called *ataxic* phenomena, which are well-known and dreaded by experienced men.

These you must distinguish from such as are proper and ordinary to the disease, but which threaten or destroy life by their excessive severity. You will understand the distinction better by a few examples. A patient may have small-pox of great gravity, may be brought into exceeding danger by the secondary fever, pneumonia, œdema of the glottis, or by deep-seated suppurations, but yet there is no ataxia. If, however, about the 6th or 7th day, all at once, without apparent cause, the patient's strength gives way, and alarming nervous disorder supervenes in the form of delirium, coma, anxiety, depression, dyspnœa, without any appreciable thoracic affection, we have too much reason to expect a speedily fatal termination. These symptoms are anomalous, they are not in accordance with the usual course and character of variolous fever, they are ataxic. Another symptom of the same class is hæmorrhagic effusion taking place from cutaneous and mucous surfaces, as in the variety termed "variolæ nigræ." Nothing of this kind ought to occur in even the severest regular small-pox, it is an anomalous symptom, and therefore grave.

Again, a patient suffering from pneumonia may have delirium, and be otherwise gravely ill—in fact, may die, (as a poor fellow did who sank about three hours after he was admitted, and in whom we found the whole of the right lung in a state of gray hepatization, while the left was also somewhat inflamed,) and yet there is no ataxia, no anomaly. But if during an epidemic of pneumonia one person sickens no more severely than several others as regards the extent and intensity of the inflammation, but nevertheless becomes delirious at a very early period, and has an extraordinarily rapid rate of breathing, so much that the respirations equal or exceed in frequency the pulse-strokes, this man has ataxic or anomalous pneumonia, and is in much greater peril than another whose lung inflammation may be twice as extensive, whose temperature is higher, and pulse more accelerated, but whose nervous system remains comparatively undisturbed.

An attack of acute articular gout may be painful and distressing enough, but so long as it remains confined, as it normally should, to the articulations, it is not perilous. When, however, it becomes anomalous, and leaving more or less completely the articulations, attacks the brain or the heart, it brings life into exceeding jeopardy. Rheumatic fever, so long as it preserves its normal character, confines itself to the articulations, synovial sheaths, or fibrous membranes; when it assails other parts it becomes more or less anomalous.

These remarks may serve as an introduction to two cases which have recently been in the hospital, in which rheumatic fever presented sundry peculiar phenomena, constituting well-marked aberrations from its regular course. Such occurrences are by no means infrequent, and you should be prepared to encounter them.

Case 1.—W. H., æt. 24, admitted February 7th, 1868. The next day the following notes were taken. According to his own account (which cannot be implicitly relied on, on account of his mental state) he has been ill about a week. Is of fair complexion, pale face, skin moist and hot; perspiration acid and rheumatic; tongue furred, yellow, and moist. Complains of pain in feet, at present there is

no swelling of any joint, but yesterday the left wrist was notably inflamed. The right foot is strongly curved inwards, and the dorsum twisted so as to look upwards and outwards; both feet are very painful when moved. None of the muscles of the right leg are rigid as far as can be made out, possibly those at the inner side of the foot may be. Heart's sounds normal; passes all his urine in bed, was very talkative and delirious during the night; at present is rational enough to answer questions properly; pulse 80, of tolerable force and size; eyes clear and bright; a trace of eruption on fore part of chest. Potassii iodidi, gr. i. + mist. potass., citrat.-efferv., ℥iss., 3tiis horis. Pulv. ipecac., gr. ij. + morphiæ muriatis, gr. ½ + extr. hyoscy., gr. iv. in pil ij. *h. n.*

9th.—Much delirium all night, was not vomited by the first pill; was quieter after he had a second without the ipecacuan; pulse 93, of good force and volume; has taken his dinner well; has been more rational since ten A.M.; heart's sounds normal; pulv. ipecac., gr. xx., vespere si opus sit; repeat pil. morph.

10th.—The emetic was taken, but it only acted on the bowels; he then took the pill and slept well; had a very quiet night; urine this morning clear, acid, of lightish colour; respiration 18, asleep; pulse 80, not weak. Complains of pain in back, says that all his lower limbs from loins downwards are set fast, so that he cannot move them; the right knee is straight, and the muscles are rigid, it gives him great pain if I use any force to flex the joint; the left is partly flexed, and is also held rigid; he cannot bear to have it extended. Both hips are also set fast by contracted muscles. The right ankle is mobile, the left tender; both feet are now curved inwards nearly alike. Has been asleep all day; temperature 100°; atropiæ, one-fortieth of a grain, to be injected subcutaneously; repeat pil. morph. si opus sit.

11th.—Passed a good night, did not need the morphia; pain in loins severe, prevents him from turning; does not seem to be notably increased by pressure; says his legs feel so weak, but his knees are much less rigid; C.C. ad lumbos ad ℥iij.; repeat atropia injection. Pt. mist. *ter die.*

12th.—Pain in back much less; has good sensation in legs, and can move them, but not well. There is scarce any trace of rheumatism anywhere; the ankles bear passive motion. Potassi iodidi, gr. iv. + dec. cinchon, ℥i. *quater die.*

13th.—Is doing well; can move legs better.

15th.—Can move left leg well, but the right knee is stiff and intolerant of passive motion.

17th.—Right leg almost completely flexed; the hamstring tendons are stiff, and he cannot bear extension; urine pale and clear; atropia injection, adde tr. valerianæ ℥i. ad ℥i. mist.

21st.—Getting much better.

25th.—Is getting on very well; can walk about, but feels very weak; requests remedies for a urethral discharge which has existed since about the middle of last December. The discharge was puriform, and there was balanitis to some extent. A goulard lotion, and chloride of zinc injection, pretty well got rid of these troubles; he was then ordered citrate of iron and quinine, with tr. nucis vomic, and left the hospital in very fair case March 3rd.

It may be questioned whether this was a case of gonorrhœal, or of simple rheumatism. I do not think that it matters much which we regard it, but my own belief is certainly that it was the latter. Delirium is not, as far as I am aware, ever met with in gonorrhœal rheumatism. I shall defer saying anything farther about the delirium till we consider the next case, but I will ask your attention to the lumbar pain, and the tonic spasm of the lower limbs. These symptoms set in markedly, just after the disappearance of the delirium, although it is true that on his admission there was evidence of similar spasmodic action about the right foot. I believe we shall not be far out, if we regard the spinal symptoms as the equivalent of the cerebral, both on account of their order of succession, and their supervening under the same circumstances. We can hardly think that there existed any cerebral meningitis, though probably there was some amount of intracranial hyperæmia. Neither is it likely that there was any actual spinal meningitis, but only more or less irritation of the lumbar enlargement from whence the nerves of the lower limbs are given off. The unknown cause of rheumatism acting on the hemispheres disordered their function, that of duly subserving the mental actions, and thus the patient had delirium. In a like manner, it acted on the lower spinal centres, deranging their function, that of acting harmoniously with the voluntary motor centres, and by morbidly stimulating the nerve-cells of this part gave rise to tonic spasm. The lumbar pain was caused by a state of the sensory nerves, homologous to that which conditioned spasm in the motor. Although I believed that the spinal symptoms proceeded mainly from rheumatic irritation, I thought it quite necessary to act on the more unfavourable view, viz., that meningo-myelitis if not actually existing was yet imminent, or at least to be feared. You know that it is in medicine as in warfare, some posts have to be fenced and defended with extreme care, not on account of their magnitude, but because of their importance to others, and because if once lost they can with difficulty be regained. The loss of a few ounces of blood was, even if unnecessary, a trivial damage, compared to that which would have occurred from allowing inflammatory mischief to establish itself unchecked in the delicate tissue of the cord and its nerve-roots. Two or three days continuance of such morbid action, might have done damage which years would not have repaired; and it was therefore only prudent to act, as you should in all like cases, and ensure your patient, as far as possible, against threatening or possible evil by timely precaution. The cupping was decidedly beneficial, and we have no cause whatever to regret the small loss of blood. I hope you will never allow yourselves to be so led away by the too prevalent hœmatophobia, as to neglect the old practice of letting blood when occasion requires. With most persons a few days good feeding will replace the blood-cells which you have abstracted, while many weeks or months might not avail to repair the textural damage, which unrestrained inflammation may inflict on a delicate organ. I hope, also, you will not neglect to become skilful cuppers, it is often preferable to abstract blood in this way rather than by leeches. The atropia injection was evidently useful; I believe it was repeated five or six times, and I am rather surprised that it did not produce more evident effects on the pupil, or the throat. A third of the quantity injected constitutes an efficient dose, to be taken at one time, which I should not like to exceed in most persons; and as the energy of a drug administered subcutaneously is much greater than when it is given by the mouth, I should not have ventured on so large an amount, had I not known that as much or more had often been used in the same way by others. It was given as a direct sedative to the excited nerve-tissue of the cord. You may be assured that such phenomena as occurred in this case are very rare in rheumatic fever. Cerebral disturbance is often witnessed, but the spinal centres seem far less prone to be similarly affected. I think you cannot but observe in this case, how mild and slight the articular inflammations were, not more, indeed, than was just sufficient to make us certain what we were dealing with. In fact, at the outset, I was half inclined to question whether the disorder was not largely exaggerated. I may mention that I have recently seen a case of the affection, termed by Trousseau tetania, which he in common with other French observers regards as of "rheumatic nature." The disorder is by no means rare in France, but this case is the first I remember to have seen. The patient was a young girl, both whose hands became cramped and fixed in a slightly flexed position one day while she was washing. The disorder did not affect other parts, and disappeared of itself the following day. Though this child's case and the one I have related are separated by a long interval, there is an evident resemblance between them, the tonic spasm being in both almost

certainly of rheumatic origin. That the cause of rheumatism acts often in a very special manner on some department or other of the nervous system seems to me unquestionable, and the knowledge of this fact may sometimes throw light on neuroses, whose causation would otherwise be very obscure. In proof of this, let me refer you to a case which I have published (v. *British Medical Journal*, 1866, November 3rd) of concurrent chorea and delirium, both being sufficiently severe, and the rheumatic nature of the whole malady being evidenced by the discovery of a mitral murmur during life, and of endœcorditis after death. Here the brain and cord suffered quite in a like way, the motor disorder in the one being the equivalent of the intellectual in the other. Very probably had our patient W. H. been a female, the functional derangement of his cord would have assumed the guise of chorea, rather than of tonic spasm.

Case 2.—Lewis H., æt. 31, groom, admitted December 11, 1867. Had rheumatic fever 10 or 11 years ago. Health fairly good since that time. Ill now since December 8th, when it was very cold and snowy. First felt pain at chest, it has extended all over him, and now the hands, ankles, knees, and loins are affected, as well as the arms and shoulders. Heart's sounds normal. Urine, spec. grav. 1020, fully acid, has been, and is, very scanty. Profuse perspiration. Bowels not open. No appetite; much thirst. Pil. hydr. c. coloc. gr. 8 statim. Pot. bicarb. ʒss. + pot. nitrat. gr. x. + M.C. ℥i. 4tis horis.

14th.—He appeared to be going on fairly well all yesterday, but has been very delirious since 2 A.M., wandering very much, and wanting to leave his bed. Is sufficiently conscious to answer questions now. Expression of countenance indicative of excitement and mental confusion, gaze rather intent; bowels open; tongue slightly coated, and moist; pupils rather large, equal; skin moist and perspiring; pulse 102, soft, regular; urine very thick with lithates, not albuminous, spec. grav. 1034 yesterday. A dull red, spotty eruption has appeared on neck and front of chest, and to a less extent on the abdomen. Pot. bicarb. ʒi. + M.C. ℥i. 2dis horis. Opii gr. i. + pulv. colchici. gr. v., in pulv. 4tis horis. Milk O. i., brandy 6 oz.

15th.—Was very delirious in the night, but not so much so as the previous night. Pulse 120, large, excited. Answers questions, says he is ever so much better, is inclined now to sleep; is very thirsty; tongue very baked and dry in a broad median stripe; temperature 104° ; eruption is extremely copious on the abdomen, and very much so on the chest and on the back; it is present on the arms, but not on the thighs or legs at all. It consists of low papulose elevations of small size, and of ill-defined maculæ closely crowded together. It has a good deal of resemblance to the eruption of typhus, but the aspect of the patient's face is not dull, heavy, and confused, as in that fever; pupils not so large as yesterday; no dulness in the back, but air does not enter freely, and there is some obscure râle; rheumatism has left the limbs.

16th.—Pulse 108, of fair force; tongue dry, especially in the middle; forehead rather hot; eyes not injected; has been very restless and delirious; likes his brandy; urine = 34 oz. in 24 hours, red, deposits lithates; eruption faded to some extent on the abdomen, the papules are more elevated; takes milk O. ij., temperature = 104°·5. Ant. pot. tart., gr. ¼ + aq. ʒi. *o. h.*

17th.—Pulse 110, of good size, and tolerable force, soft; tongue dry; bowels open; urine clear; no vomiting; abdomen much distended by flatus; eyes tolerably clear; head has been shaved and cold applied; has had 26 doses of his mixture; was a little quieter after an opiate enema last night, wandering much, but did not try to get out of bed; answers questions pretty sensibly; likes the cold lotion; pupils of moderate size. Ant. pot. tart., gr. ½ + mist. potass. citrates ʒiss., *quater die.* Repeat enema, cold effusion to head, ten minutes at a time, twice a-day.

18th.—Was sick, and vomited before the first cold effusion, has had no vomiting since; tongue moist, coated. Had, this morning, a dose of calomel and colocynth, aa. gr. iv.; was quieter in night; pulse 105, large, soft; some show of rheumatism in wrists; eruption has faded very much; heart's sounds normal; temperature = 38°·4 (101·12). Repeat mistr., enema opii., and cold douche.

19th.—Says he is a great deal better; had a pretty good night, is less delirious; bowels open; no vomiting; pulse 96, soft; temperature same; rheumatism very slight; is much better after the cold douches, rather likes them.

20th.—Pulse 87, soft; some distinct sudamina on belly and chest; is drowsy; takes nourishment well; temperature 100·7; heart's sounds weak. Vini. ipecac. ℥ 8 + pot. iodidi gr. iss. + spt. œth. chlor., ℥ x. + tr. hyoscy, ℥ 20 + mist. potass. citrat. ʒi., *quater die.*

21st.—Doing well, quiet, and rational; has pains and stiffness in limbs; urine quite clear, of natural appearance; a good deal of sudaminal eruption on chest and abdomen, the red has nearly disappeared; some sore throat he had two days ago is much better.

23rd.—Doing well, not the least delirium; pains and stiffness in limbs; pulse 96, very soft; temperature = 38° (100·4). A brushing exocardial friction sound is heard; heart's apex elevated, beats in fourth intercostal space, just below, and to the outside of, the nipple. Blister (2 + 2) to precordia., adde mistr. tr. cinchonæ, ʒi. ad ʒi.

24th.—More delirious; pulse 100, not very weak; tongue too red, moist; urine clear, full-coloured, neutral; marked rheumatic smell; bowels not well open. Pil. hydr. coloc., gr. viij. statim; brandy 10 oz.

26th.—Urine acid, deposits pink lithates copiously; complains of much pain in the back part of forearm, and about the left clavicle; pulse 108; friction sound continues; dulness extends up to the third rib, but there is resonance (of stomach) as high as the fifth; above the third rib good breathing is heard; a good deal of eruption on chest and abdomen still; hands very stiff and painful; tongue dry, and put out with difficulty; is quite rational now.

27th.—Bowels, which had not been acted on by the pills on the 24th, opened by two doses of mist. alba; tongue moister; says he has rheumatism all over him.

28th.—Pulse 108; is rather inclined to wander; not much rheumatism now; loud friction sound heard close under left clavicle, and at inner part of right; takes his brandy and nourishment well; urine clear, of full colour, weakly acid, sp. gr. = 1027.

30th.—Is doing well; very little rheumatism now; friction sound still loud; pulse 93, weakish; much sudaminal eruption still; tongue moist, clear; bowels open with pil. hydr. and mist. alb.

31st.—Temp. = 37·2 (98·96); tr. cinchona ʒi. + pot. iod. gr. ij. + decoct. cinch. ʒi. *t. d.*

1868—Jan. 1st.—Friction sound ceased; o. diet, brandy 4 oz., milk O.i.

4th.—Doing well; apex beat still in fourth intercostal space; urine palish, clear, non-albuminous, sp. gr. 1022.

11th.—Improving daily; urine very pale, sp. gr. = 1006; heart's sounds normal; ferri et. quinæ, citrat. gr. x. + spt. œth. chlor. ℥x. + aq. ʒi. *t. d.*

15th.—Looks pale and cachectic, and emaciated, with a stale, not acid, smell about him; some red spotty eruptions about his chest; much pain between his shoulders; weather mild and soft, thaw and rain having succeeded to frost; adde. mist. strychniæ gr. 1-20, et acidi citrici q. s. ad. ʒi.

23rd.—Improving, but rheumatism still hangs about him.

Feb. 1st.—Is up and about, getting on well, takes food well, but complains of pain at upper abdomen, passing through to the back.

4th.—Had a very bad night with pain at xiphoid, passing through to the back; he can hardly breathe for it, is obliged to lie on his back; he breathes without evident expansion of the ribs, the whole chest rises *en masse*, but there is no play of its individual parts; in the recumbent position I can hear breathing in the fronts, but when I put him up sitting to examine the backs, he complains of severe pain extending from the lower sternum to the back, and he keeps his chest so motionless that there is complete silence; on percussion I find no decided dulness, but the resonance is

rather "woody;" the chest walls being held rigid, do not vibrate as they should normally; heart's sounds normal; the cardiac dulness still occupies the space from the 3rd to the 5th rib; pulse 120, large, open, and very soft; perspires a good deal; urine red, tolerably clear and free, acid; pain has been much relieved by a sinapism; potass. iodid. gr. iij. + ammon., carb. gr. iij. + sod. carb. gr. v. + inf. valerian ℥iss., *quater die.*

5th.—Marked bronchial breathing in right lower back and woody percussion, in left same but less marked with a little moist râle; pain is more about right scapula; lies down at full length; lig. opii. sedat. ℥x., injected subcutaneously.

6th.—Pain greatly relieved; dulness and absence of breathing in left back; in deep inspiration tubular breathing heard; seems quite comfortable.

8th.—Doing well; fairly good resonance in right back; the left is markedly dull at the lower half; good breathing is heard down to the right posterior base, and the vocal fremitus is well felt, even through a linseed meal poultice; in the left back the breathing is distant, weak, and tubular over the lower half; near the spine the air is heard entering more freely, and the tubular sound is louder; vocal fremitus is not felt in the left lower back, at least not through the poultice; in upper third of left back breath sound is normal.

10th.—Much more resonance in lower left back, and much more breathing, the latter is still somewhat tubular, but vesicular begins to predominate, except towards the base, where it gradually gets weaker; heart's sounds normal.

12th.—Is doing well; vesicular breathing, with friction sound (*quasi-crepitant*) heard near left base.

15th.—Tr. Cinchonæ ℥i. was added to his mixture, and he left the hospital in good case about the 20th instant.

In case 2 the rheumatism, which at first was well-marked, receded in great measure as severe delirium set in. This metastasis has appeared to me to be the general occurrence in cases of rheumatic delirium. It is exceptional in my experience that the articular affection persists when the brain becomes notably involved. This delirium was evidently owing to the cause of rheumatism, whatever that may be, and if we believe, as I think we must, that this cause is present in the blood, we can hardly avoid the question—why in so many well-marked instances of rheumatic fever there is no delirium.

The answer must be, I think, that the organ of average vital power persists in its due nutrition, notwithstanding the unhealthy blood which it receives, while the weak organ fails to do so, and consequently falls into disorder. The same thing is observed in many similar conditions. There is a patient now in the wards who has grave degeneration of the kidneys, as shown by albuminuria and low spec. grav. of the urine, which is almost destitute of uric acid; yet she has no delirium, coma, convulsions, or anasarca. In fact, as I have often said to you, in every case you have to consider not only the poison, or *materies morbi*, but also the system on which it acts. It may be out of your power to remove the former, but you may do much to enable the latter to endure the injurious influence better; in fact, to sustain the vital power. You should neither be exclusive humoralists nor solidists, but keep in mind the idea of the separate and distinct life of the tissues, as well as that of their being to a most important extent influenced by the blood. A snake-bite is not cured by means to effect elimination of the poison, but by sustaining the system with alcohol until the depressing effects have passed away. The delirium was rather active, and seemed to require some depressing remedies. I employed at first a combination of opium and colchicum, which acts in some instances very well, but it failed us here. I then had recourse to tartar emetic and cold effusion to the shaven scalp. In the first twenty-four hours he took six and a-half grains of the salt, and subsequently gr. ij. a-day for the next three days. The delirium had then so much subsided that I omitted the antimonial, and replaced it by a small dose of vin ipecac., to maintain some time longer a calmative action on the excited brain. The cold douche was very beneficial, and was rather agreeable to him than otherwise. I used these remedies to reduce the morbid excitement of the hemispheres, which I believe they effected—the antimonial by its direct influence on the nerve-cells of the convolutions, the cold douche by its action on the nerves of the scalp, transmitted centrally. At the same time, however, I did not omit to guard against any possible depression of the heart's power, by directing that the patient should have six oz. of brandy given with milk every twenty-four hours. You need never fear any reproach for inconsistency in thus employing two apparently opposite medications. By guarding your remedies, as in this instance, you will often be able to obtain good effects without incurring the risk of inducing bad ones. That antimony does exert a direct calmative influence on a sthenically excited brain is evident to me, because when administered in full doses its action is often completely confined to the disordered organ, and there is no trace of nausea, diaphoresis, or depression of the circulation. The cold douche to the shaven scalp, I think, is a particularly advisable means in similar cases, because you can adjust its operation so exactly, discontinuing it as soon as it appears to be too depressing. You may often, however, have to continue its use for a somewhat long time—fifteen, twenty, or even thirty minutes at once may not be at all too long. Although in the case before us these decidedly lowering remedies proved positively efficacious, I would not by any means have you think that such are always to be employed. In some instances they might be quite unsuitable, and a full dose of morphia be far more beneficial. In the first case I narrated the patient's condition did not call for the administration of antimony; one full dose of ipecacuanha was sufficient to enable the morphia to take complete effect, but without it you will remember he remained delirious, although he had a second dose of morphia.

Cases are not infrequent, and I have recorded two such in my work, where morphia or opium alone tranquillized acute rheumatic delirium. In fact the morbid action varies much *in quality* in different individuals, and the treatment must be varied accordingly. For patients who show no marked signs of depression opium or its alkaloids are apt to prove too stimulating, and may even increase the disorder. On the other hand, you must remember that depressants are edge tools, and very capable of doing great mischief if employed unseasonably.

The eruption was a very remarkable phenomenon, I have never before seen one so copious in rheumatic fever. For a moment I was led to doubt whether my diagnosis was not erroneous, whether my patient, with a temperature of 104°, and considerable delirium, was not really labouring under typhus. When I saw, however, that the thighs remained quite exempt, I was reassured. The presence and the amount of eruption in acute rheumatism has generally appeared to me to be in relation to the degree of nerve debility. I was, therefore, not surprised to find it copious where the brain was seriously affected. Its production does not, I believe, indicate so much any irritation of the tissue of the skin by the cause of rheumatism, as a loss of tone in the cutaneous vasomotor nerves and capillaries, giving rise to dilatation of vessels and accumulation of blood.

After the delirium had quite subsided, it reappeared again for a few days simultaneously, with a mild attack of pericarditis, and recurrence of rheumatic pain and stiffness in the limbs. In eight or nine days the pericarditis, delirium, and rheumatism had passed away, the only alterations in the treatment being the increase of the brandy to 10 oz., the addition of tr. cinchonæ ℥i. to each dose of the mixture, and the application of a small blister to the precordial region. The hyperæmial eruption soon declined very much, and was succeeded by a pretty copious sudaminal, which did not appear to me to be dependant on sweating.

He went on taking tonics, and during about a fortnight he seemed to be getting quite convalescent, when the rheumatism recurred with another peculiar manifestation.

Pain set in evidently seated in the diaphragm, or in the pleura investing it, and caused for a short time almost serious embarrassment of the respiration. It was relieved by potass iod., and subcutaneous injection of opium; and though it was followed by considerable pleural effusion, this was soon removed, and then convalescence became completely established. In my experience, it is far from common for rheumatism to affect the diaphragm so as to interfere materially with the breathing. Diaphragmatic pleurisy is common enough, but does not seem necessarily to affect the muscular layer. I have notes of one case of right side pleuro-pneumonia, in which after the more acute symptoms had subsided the patient suffered a good many (about ten) attacks of extremely severe pain referred to the epigastrium and the lower parts of chest. He described it as like the pain of cramps, and preventing him from getting his breath. Some of the paroxysms were extremely severe, in one the medical attendant assured me he thought that life was extinct. They lasted about three minutes each. In some of them he had "risus sardonicus." In this instance, as well as in the one you saw, I think the pain was rather a neurosis than of inflammatory origin, although in both cases there were evident inflammatory products. The latter, however, are being continually met with, without any such peculiar and grave nervous disorder, in close proximity to the diaphragm, so that I do not think mere basal pneumonia or diaphragmatic pleurisy sufficient to give rise to the symptom. On the other hand, we can well understand that an affection like muscular rheumatism attacking the diaphragm itself might very seriously interfere with the action of this important muscle. I regret that I omitted to note the abdominal movements at the time the thoracic were suppressed, but there can be little doubt that they were similarly affected. The lower six ribs to which the diaphragm is attached, of course, cannot move without putting that muscle on the stretch to some extent, and we can therefore easily account for the restrained expansive movements. It is worthy of remark that at first the effusion seemed to be about to take place, or to be taking place, most abundantly in the right chest, three days later the left was very notably affected, and the right had become free. This is very like the shifting of rheumatism from one knee-joint to another, and shows, I think, that the nervous system was largely concerned in the matter. Tissue disorders are, as a rule, fixed in the part they first attack, while those which depend on deranged innervation are notoriously the reverse. This probably depends on the much more rapid alteration of the nutrition of nervous tissue.

I have now brought before you examples of cerebral disorder, of spinal-cord disorder, of a peculiar eruption, of pericarditis, and of diaphragmatic rheumatism occurring as anomalies in the course of acute articular rheumatism, but I must refer briefly to a third case for illustrations of two others.

Case 3.—J. J., male, æt. 54, admitted December 5, 1865. Has been laid up five weeks, never suffered in same way before. He was first taken in the middle of the neck, "just as if he had been hit with a great stone;" the left side of the head was first affected, and then the right, and then the disorder extended all over him. His hands and feet are much swelled and inflamed; he can't feed himself or stand; the knees are also swelled and stiff. Pulse 96, compressible, rather bounding. Skin perspiring freely. Tongue rather coated. Heart's sounds normal. Urine has been very red, is more free now. Pot. bicarb. ℥ss.+ potass. iod. gr. i. + vin. colch. ℥ v. + mist. potass citratis ℥iss. 2*dis horis.*

6th.—Perspiration very copious and highly acid; urine barely acid.

7th.—Was very delirious last night, got out of bed; is evidently wandering now, talks of some of his relations working for my firm; answers questions pretty rationally when spoken to. Pulse of fair force, about 90. Heart's sounds normal. Morphiæ muriat. gr. one-third + extr. hyoscy. gr. v.

8th.—Slept a little better, but was very delirious in night. Says he felt very weak this morning. There is but little appearance of rheumatism on hands or feet, or anywhere; less sweating. Pulse 84, soft; head cool; pupils rather large. Takes nourishment well. Morph. muriat. gr. two-third + extr. hyoscy. gr. iij. Pl. mist. *quater die.*

9th.—Had a much better night.

11th.—Last two nights have been very good; he seems to have scarce any rheumatism now, but complains that he has sudden pain of scalding character in both palms, extending down to fingers and up to the wrists, if he uses his hands to take hold of anything; can stand better; bowels open; tongue nearly clean. Tr. cinchon. ℥i. + pot. nitrat. gr. x. + aq. ℥i. *ter die.* Repeat pil.

16th.—Improving; urine alkaline, depositing phosphates; three days ago the urine was clear and acid, pulse large, full, compressible, rather excited. Omitte pil. morph. mist. quinæ, ℥i., *ter die.*

19th.—Getting on fairly, feels weak about ankles. Last night on taking off his boots he found both feet smarting and perspiring; they as well as the lower legs were notably reddened. To-day I find a copious purpuric eruption, the spots being separate above, but coalescing into extensive continuous patches below; the eruption is most marked and considerable on the inner part of right lower leg and the outer of right; both legs are tender in the seat of the eruption, especially the left; his toes feel rather swelled. The purpuric spots and patches are of a dusky dark red. Pulse rather excited, is distinctly weaker than it has been; states that he has always been a healthy man, of temperate habits, has lived well, not been deprived at all of vegetables, takes usually 1 lb. per day. Urine acid clear. Ferri et quinæ citratis, gr. viij. + acidi citrici, gr. x. + aquæ ℥i., *ter die.* Ord. diet, porter, rice pudding.

23rd.—Purpuric eruption very much better.

27th.—Pulse notably weaker than it has been, extremely compressible; legs almost well; back feels weak.

30th.—Some recurrence of rheumatic swelling in left hand; purpura all but gone; strength improved.

Jan. 5, 1866.—Left hospital fairly well.

The delirium in this case was of more asthenic quality than in the other two; it yielded distinctly to moderate doses of morphia. The points for the sake of which I have cited the history are the peculiar dysoesthesiæ which affected his hands as the rheumatism receded, and the purpura of the lower limbs. The former I regard as a peripheral nerve disorder analogous to the central, viz., the delirium, which had just ceased, and doubtless depending on the same cause, which was still, though less actively, in operation. The purpuric eruption seems to me capable of a similar reading, only that I suppose the vasomotor nerves of the skin to have been more affected than the sensory. The first symptom was smarting, a sensory disorder, attended with more or less hyperæmia, probably from relaxation of the cutaneous arteries. In consequence of the defective innervation, I believe the homogeneous membrane of the capillaries became altered and relaxed, so that it allowed the escape of blood into the texture of the cutis. My reasons for ascribing this alteration in the capillaries to failure of nervous power are—1. That instances are on record where sanguineous effusion has taken place from capillary vessels in consequence of some shock to, or irritation of, the nervous system; 2. That purpuric eruption has been seen to follow immediately the use of bromide of potassium (a remedy which often produces drowsiness, and other symptoms of lowered nerve power), in a person who had no hæmorrhagic tendency, and to disappear when the drug was left off. 3. That, as Sir T. Watson states, in facial neuralgia the eye becomes bloodshotten at each attack in some instances; and 4. Because the allied disorder scurvy has been known to be produced by purely mental causes, and to disappear with their removal. It is clear that a deficient supply of vegetables or of potash could not have had anything to do with the occurrence of purpura in this instance. No doubt there are other condi-

tions which give rise to purpura besides impaired nervous influence, but I believe this is one of the most frequent. Lately you remember we had a boy suffering with Bright's disease, in the wards, who was admitted with very marked purpura of the legs. Under the same treatment it disappeared rapidly, but anasarca soon after set in, though it is rather remarkable that it was much more marked in the face and scrotum than in the limbs where the purpura had prevailed, so that it would seem that the conditions determining the two disorders are not quite identical. That the purpura was not a mere sequel of the rheumatism, appears from this, that the latter recurred slightly as the purpura was receding, as also from a case which I have recorded in my work, p. 166, where purpura opened the scene in a case of rheumatic fever. Here also delirium of asthenic quality occurred in very close connection with the purpura, another example of the relation between the cutaneous symptom and deranged innervation. The same is affirmed by the accounts we receive of the very fatal disease termed spotted, or purpuric fever, in which the two most prominent phenomena are delirium or coma, and the hæmorrhage, which is not merely cutaneous, but affects (as simple purpuric may do) sundry of the viscera.

I might have included in this lecture, were it not already too long, some notice of pneumonia and pleurisy occurring in connection with rheumatic fever. But these, as also pericarditis, belong rather to the group of inflammatory complications, and must be reserved for another occasion.

I must not omit to call your attention to another anomalous occurrence in rheumatic fever, viz., its rapidly fatal termination by stupor and coma, while at the same time the temperature ascends to a very high figure, as 109° or 110°. The stupor may or may not be preceded for a short time by delirium, more or less violent. In three autopsies, recorded by Dr. Ringer, the brain and its membranes were found quite healthy; in two of them the pericardium had been inflamed; in all, the lungs were in a fairly healthy state. The rapid invasion of coma and of death by asphyxia, with the simultaneous excessive increase of temperature, are the most notable phenomena. That the temperature should be rising at the time when the respiratory processes are being arrested is remarkable, and, with our present knowledge, somewhat difficult of explanation. We trace however, without difficulty, a relation between the two events, inasmuch as we know that vasomotor paralysis is the chief motor of morbid elevation of temperature, and we find the same kind of disorder affecting the centres of consciousness and of respiration. As far as appears at present, this nervous paralysis must be ranked as functional, not resulting from any demonstrable lesion of the organs concerned.

You will find Dr. Ringer's paper in the *Medical Times and Gazette*, October 5th, 1867. Schönlein has recorded a somewhat similar instance, which I have cited in my Lumleian Lectures.

Original Communications.

ON THE TREATMENT OF DISEASES OF THE SKIN.

By J. L. MILTON,

SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

(Continued from page 455.)

CHAPTER III.—TINEÆ.

Definition.—Dry scurfy, reddened, or pale and shining patches, accompanied, when on the scalp, by shedding, twisting, loosening, and falling of the hair, and in some cases secretion of scales.

Divisions.—1. T. areata (alopecia areata or area). Sudden falling of the hairs from small patches of the scalp, often nearly circular in form, leaving a white, polished, and often wasted state of the skin. After the epidermis has once been thrown off there seems to be scarcely any reproduction of it. General alopecia, a simple thinning and falling of the hair, may be classed as a mild chronic variety of this. 2. T. decalvans. An aggravated state of the former, the whole head of hair being swept off in a very short time, only a solitary patch or two, or hair or two, being left. 3. T. tonsurans, in which patches of the hair, generally somewhat circular in form, are cut down to stumps. 4. T. circinata or ringworm. An eruption of red, nearly circular, erythematous patches or groups of very small red papulæ, generally seated on the head, neck or arm. 5. T. favosa. Formation of red, slightly tender patches, generally on the scalp, which gradually become covered with small, yellow, adhesive tenacious crusts, marked by a peculiar mouse-like smell, accompanied by loosening of the hair, and wasting and blackening of the roots. May also attack the face, thigh, nail, &c. Hardy gives as the characteristic signs of favus—1. The mycelium, an assemblage of filaments, sometimes simple, sometimes branched. 2. Tubes, simple or celled, isolated or adhering to one another; some empty, others containing spores. 3. White granules, oval or rounded, sometimes irregular, of variable volume. These are supposed to be the spores or organs of reproduction of a parasite of vegetable nature, the achorion Schönleinii. With a magnifying power of two to three hundred diameters, numerous spores may be seen, and sometimes tubular filaments may be detected in these parts. The Burmese ringworm seems to be clearly a local form of eczema.[1]

As those who contend for the parasitic nature of tineæ found their treatment upon the view that the parasite is vegetable, and as those who deny the vegetable nature of the parasitic structures uphold a very different kind of treatment, it becomes absolutely necessary to examine the contending views, however briefly.

If I understand aright the view put forward by the former, it amounts to this, that the parasitic growths on the skin are as truly vegetable in their nature as the mould on an orange or melon, because we can distinguish the presence of cellulose externally, and can see internally the primordial utricle coloured by iodine, and because we find in the secretions of these diseases the tubed mycelial thread, and a fructification unrepresented in animal structures. Ether, chloroform, and spirit of wine, do not affect these parasites, while they make epithelial tissues transparent, and dissolve all fatty matters. The parasites mostly grow in places to which the air has free access, exceptions to this rule admitting of doubt; they grow too, when removed from the influence of blood and living tissue, a separation which is fatal to animal life. A piece of favous matter, if fittingly nursed and tended, will take root and flourish; the nuclear element will assume the sporular form, and the sporules will gain in size, join, bud, and bring forth mycelium, while the very structure on which they are seated is decaying. Dr. Fox showed his friends a beautiful specimen of the tricophyton tonsurans, which had blossomed in a most delicious manner, while the fibres of the hair on which it grew had degenerated, and their place had been supplied with delicate tufts of crystalline fatty matter.

Dr. Fox says,[2] "take away the damaged hairs, &c., of tinea, and nothing diagnostic of the ravages of the parasite remains. *Per contra*, remove all the eruptive and the parasitic remains in its integrity: the necessaries remain, but the accidentals are absent. The presence of the fungus increases the local irritation. Now, if the fungi be different, there must be different soils, and the treatment be different in kind. If the fungi be identical in nature, then the treatment is a matter of degree only; if fungi be different, then ought they to be so many indices to states of economy, states which in time will be fully interpreted."

Accordingly, to cure the disease and destroy the fungus,

1 See Journal of Cutaneous Medicine. Vol 1., p. 379. This is also Mr. Wilson's opinion.

2 The Nature of the so-called Parasites of the Skin. By W. Tilbury Fox, M.D.

you must root out every diseased hair, by gentle means if you can, but pull it out. There can be no doubt that such views are now very widely accepted. Dr. McCall Anderson is unreservedly in favour of this system. "Considering as I do," he says,[1] "that its essence consists in the presence of a parasite, I hold that its destruction is the *sine qua non* of the treatment." He, therefore, has every hair removed with broad pointed forceps, and clears three or four square inches of scalp at a sitting. Dr. Hillier says that tinea tonsurans and tinea favosa cannot exist without their respective fungi.[2] The diseases known as tinea, he says, essentially depend on the presence of microscopic fungi. M. Bazin, among others, adopt much the same view.

To all this, Mr. Wilson replies that the parasitic bodies are produced by "granular degeneration" of normal tissues, and he refers for corroboration to such instances as the development of mucus and pus. He says that upwards of twenty years ago, he came, after a very careful examination of the subject, to the conclusion that the pathological elements resulted from aberrant cell-growth, consisting in the growth and proliferation of the primary granules of which epidermic-cells and hair-cells are normally constituted; that this growth and proliferation had the effect of arresting the granules at their embryonic stage, and in the performance of their embryonic functions, and as a consequence that the cell-tissue (epidermis and hair), composed of these embryonic granules and imperfectly elaborated cells, became, upon dessication by the air, dry, spongy, and brittle; that in trichosis this change alone took place in the hair, whereas, in favus, the granules composing the yellow disks around the mouths of the follicles, pass through a pustular stage, the consequence of a higher degree of inflammation, and in their pustular condition acquire their peculiar yellow colour. This morbid alteration he considered then, and considers now, to be granular degeneration.

As regards the mode of increase and production, Mr. Wilson contends that "the granules are nucleated, separate or in groups, or adherent in moniliform strings of two to four or five in length. The greater number of the granules are uninuclear; some, however, are binuclear or trinuclear. The binuclear granule is in process of separation; the original nucleus has split into two, each moiety has become a separate nucleus; the space between them has increased; a septum has arisen in the interval, and the cell has become oblong—an oblong cell with two nuclei, or rather with two independent but adherent cells, cells that may subsequently divide and become separate cavities. This is the mode of all proliferation." At an early stage, and while in near contact with the vital tissues, the tendency is to the formation of granules, but "removed from the source of nutrition proliferation weakens, the divided cells remain adherent, and either retain their globular and independent shape and give rise to moniliform filaments, or they grow in length at the expense of their contents, and form cylindrical and transparent filaments divided by septa, each internodial segment representing a single original globular granule or cell." In the latter case they lapse "into an irregular and filamentary proliferation, giving rise to an inferior form of organization, neither so complete nor so permanent, and which converts the higher animal organization into a lower and phytiform organization—an animal tissue into one which might be likened to a vegetable tissue."

These quotations, then, give us as the sources of the so-called fungus elements, the normal tissues (epidermic granules), the nature of the disease which is here looked upon pathologically as a granular degeneration; the mode of increase by the division of the nuclei of the cells, and the secondary division of the cell itself; the formation of the so-called mycelium by the division of the nuclei, and the breaking up of the binucleated cells into separate unities. These stages are best seen in favus. The granules are globular, uninucleated, bi and tri-nucleated; the mycelial forms are moniliform and opaque, cylindrical and transparent, with a branched and ramified filament. "In the case of the trinuclear cell, a bifurcation is effected, and the proliferation of each part of the tissue cell lays the foundation of a branched and phytiform growth." The peculiarity of favous "is due to a pustular complication;" the layer of the favus mass, next the basement membrane of the derma, is made up of pus globules; "these pus globules contain from four to seven or eight well-formed nuclei; and these nuclei on their escape from the cell-membrane of the pus-globule, become the nucleated granules which are the chief constituent of the pathological product." The moniliform thread is produced by the coalescence of these escaped nuclei. We have then to notice the view that in favus the phytiform elements are derived from the nuclei of pus-cells. Mr. Wilson interprets the term granular degeneration by "the idea of an arrest of development of the cell-tissue of the epidermis at its embryonic stage, and the production of a tissue constructed of crude and imperfect materials, which represent an earlier period of all generation than that which nature intended, and which, in consequence, is truly in a state of degeneration from the perfect type."

1 On the Parasitic Affections of the Skin, 1861, p. 32.
2 *British Medical Review.*

THE LOCAL TREATMENT OF HAY-FEVER.

By JAMES YEARSLEY, M.D.

THERE are no facts in the history of our profession so satisfactory as those which arise out of, and become verified in, the course of practice whilst treating maladies different to those for which the treatment is intended; such, for instance, is the result of using instruments I have adopted for many years in cases of ozena, obstructions and defluxions of the nose, relaxation, prolapsus, and ulcerations of the membrane. In the course of practice in the local treatment of these maladies by instrumentation, I have recently met with cases in the season of hay-fever, and I believe that distressing malady may now be added to the armamentarium of my specialty, for patients have expressed their surprise and pleasure at finding the great amelioration, ending sometimes in cure, of their troublesome malady from the application of the instruments I had been using.

As my object in writing on this occasion is more to beg the question among your readers and to test for themselves the value of the instruments, than to prove their success in hay-fever (whilst during the season cases abound), I will merely briefly relate an instance in point.

Two years ago Mrs. —— had suffered very much from obstruction and defluxion of the nose, with great irritation extending to the throat, and sometimes to the eyes. Deafness had also supervened, and it was chiefly on this latter account, I believe, she came to consult me, but the malady was clearly enough associated with hay-fever. Her general health suffered considerably from the local symptoms. The treatment consisted in using the elastic tube and bottle, by means of which injections of water only were introduced, sluicing, as it were, the whole surface of the convolutions of the nose and pharynx. The result was most successful. Remembering her case, I recently addressed a few lines asking if she were still a sufferer from hay-fever? In the course of her reply she says, "Some months ago Mr. S. (whose reputation as a skilful operator is doubtless known to you) visited me several times for the purpose of inserting something into my eye some way down my nose, as he thought from my symptoms the lachrymal duct was stopped. I certainly have been much freer from hay-fever since then, though my old enemy has by no means left me, and added to it, I am more or less suffering always from irritation in the throat, which often prevents my sleeping."

I certainly do not expect that the mere passage of a bougie through the lachrymal duct into the nose will relieve hay-fever, but I do contend for the passage of bougies over the surface of the mucous membrane along the floor of the nasal passages, and on the same principle that we cure gleet in cases of urethral irritation, relaxation, and dis-

charge, by the use of bougies. Add to the employment of instruments the use of appropriate injections, and we shall do more than mere medical treatment can do for the removal of hay-fever.

A lady consulted me for deafness. It was soon made evident that she laboured under obstruction of the Eustachian passages, and, in the course of conversation, she incidentally mentioned that she was the subject of hay-fever, and that on this occasion her deafness was no doubt aggravated by it. Catheterism afforded relief of the deafness, and, to her surprise, the attack of hay-fever was so much ameliorated, that I could not but consider it as the result of the passage of the catheter; consequently, I supplied my patient with a nasal probe, which she afterwards used night and morning, and the hay-fever, which had been chiefly limited to the nasal passages, has never recurred. In anticipation of the season when she may be subjected to the malady, she will use the probe with confidence, that it will be her safeguard. Cases of hay-fever, or maladies akin to it, far more marked, have subsequently come under my notice, and have yielded to local treatment so rapidly, that I have gone into the question with more energy and consideration, firmly believing that an *hiatus* in the therapeutics of hay-fever has been overlooked. Two very clever *brochures* have recently appeared by two experienced physicians—Dr. Abbotts Smith, and Dr. Pirrie, on the subject of hay-fever, but I fail to discover in the pages of their philosophical disquisitions, one word of the local treatment upon which I am myself disposed to rely as the most successful panacea for the malady.

The instrument I use, beyond the naso-guttural tube and bottle, and the nasal probe, both of which are figured in my work on "Throat Ailments," is a silver tube, minutely perforated at its extremity, and curved so as to enable the operator, or the patient, to introduce it over the tongue, and under the soft palate, so that when thus introduced, the contents of the india-rubber bottle at the end of the silver tube filled with the injection may be diffused in the form of spray over the extensive surface of mucous membrane which covers the convolutions of the nares and the upper pharynx, and, indeed, to trickle down the pharynx and larynx generally. The instrument I have denominated "spray diffuser," in cases of ozena, hay-fever, obstructions and defluxions of the mucous membrane, of the nares and upper pharynx, is manufactured by Weiss and Co., Strand.

OCCLUSION OF VAGINA.

By JAMES MARTIN, F.R.C.S.I., L.K.Q.C.P.I.

KATE F——, æt. 17, factory operative. Has been in bad health for the last year, complaining of headaches, flushings, and lumbar pains. Had never menstruated.

March 23rd, 1868.—My assistant was called to her in the middle of the night, as she was suffering from retention of urine.

He relieved her by the introduction of a catheter, but informed me next morning that there was a tumour protruding from the vagina, which had produced the retention by pressure on the urethra.

On visiting her, I found a fluctuating tumour protruding between the labiæ and compressing the urethra against the pubis.

Examination showed this, to be a membrane, completely occluding the vagina, and pressed on behind, by retained fluid; strange to say, the hymen was perfect, and I could pass my finger between it and the occluding membrane.

This latter was tough and fibrous. I divided it through its length, by means of a bistoury, and gave vent to about three pints of dark grumous matter, evidently the pent up menstrual discharge of many periods. It was expelled with considerable force, the urine gushing from the urethra at the same time.

She experienced immediate relief, and after a few days returned to work, enjoying better health than she had experienced for a long time. The improvement in the character of the face was most marked, five weeks have now elapsed, and she has menstruated without difficulty. No means were taken to dilate the incised wound, yet it remains perfectly free and open.

A point of interest in this case is, that it was not one of imperforate hymen, but the occlusion was caused by a perfectly distinct membrane.

THREE CASES OF CHOREA SUCCESSFULLY TREATED.

Miss C——, æt. 13, dark-hair, marked struma in the family, came under my care in 1861, with bad chorea; when sitting, both legs and arms were spasmodically jerked and contorted in a painful manner, but when walking, the lower extremities performed their functions steadily. The arms, however, jerked incessantly, and she had to give up attempting to play on the piano, so little control had she over their movements; nine years ago she passed lumbrici from the bowels. Pulse 90 and feeble.

I commenced the treatment by a full dose of castor oil and turpentine, which acted powerfully, but no worms were discharged.

I followed up during the next three weeks, by giving half a grain of valeriat. zinc and one grain of valeriat. quinine three times a day, and as the bowels were confined, ordered an electuary of carbonate of iron and super-tartrate of potash, to be taken at night, as required. I also ordered tepid douche-baths, moderate exercise, and fresh air, with nutritious diet.

At the end of three weeks, she was much improved, could sit quiet, without any spasm of the lower extremities, and exercised such control over the arms as to enable her to play short tunes on the piano. I now changed the medicines, giving up the valerianates, and substituted citrate of iron and strychnine, under which she rapidly recovered. A short time at the sea-side, cod-liver oil, and general hygiene, perfected the cure; the menstrual secretion set in after eight or ten months, and she is now a strong healthy young woman.

Catherine Hayden, æt. 13, came under my care in March, 1863. Both parents died of phthisis. Countenance pale, grey eyes, light-coloured hair, and slight figure. This was the worst case of chorea I ever saw, and only that her eye showed that she was conscious, I would have said that she was in violent convulsions, such were the contortions and twistings of the entire body, the muscles of the face being the only voluntary ones not affected.

I adopted precisely the same hygienic and therapeutic course as in the last case, and with equal success. The catamenia appeared during the convalescence, and before six months she was able to work in a factory, which she has continued doing ever since.

She is now a grown girl, and though of delicate frame, in excellent health.

Miss C., æt. 15, dark hair, but strumous by father and mother, was brought to me labouring under severe chorea. Could not sit still a moment; jactitation incessant, and constant rubbing of the chin against the breast; has menstruated regularly during the past year; looked fat, but flabby; pulse 80, tongue clean.

I first cleared out the prima vice with pulv. jalap comp., and then pursued the same treatment as in the other two cases, with perfect success.

CASE OF HERPES ZOSTER.

Miss B., æt. 18 years, dark hair, florid complexion, full red lips, had an attack last winter (*i.e.*, '66-67) of gouty rheumatism in the arms and wrists, which lasted nearly two months, during which time she suffered greatly from urticaria. I treated her with alkalies and quinine; but on getting rid of the rheumatic symptoms she did not recover full health, their being a strong tendency to hysteria and neuralgic pains, with, at the same time, great tenderness over the fourth and fifth dorsal vertebra. In November last I was called to see her in an aggravated attack of

hysteria, which I combatted in the usual way, with æther camphor and sal volatile. The next day she had an eruption of shingles, which gradually spread all round the body from one side of the spot of spinal tenderness until it reached the other.

For eight days they remained exceedingly painful. All the hysteric symptoms, such as crying fits, palpitations, globus, &c., being much increased. During this period the urine, before limpid and plentiful, became scant and high-coloured, and threw down large deposits of lithates and phosphates. I treated her with large doses of citrate of potass and small doses of vin colchici combined, supporting her with beef-tea and claret.

On the eighth day the herpetic eruption began to dry up, and the hysteric symptoms to subside. As soon as the renal secretions became clear and plentiful, I followed up the treatment with valerianate of zinc and quinine, and carbonate of lithia.

Her convalescence has been perfect, and the tenderness of the spine has quite passed away.

Hospital Reports.

CITY OF DUBLIN HOSPITAL.

OPERATIONS PERFORMED ON THE 26TH MAY

By Mr. CROLY.

OPERATION FOR ENORMOUS PROLAPSUS RECTI.

Case 1.—Enormous prolapsus recti of eight years' duration in a woman forty years of age, unmarried, residing in the county of Tipperary.

The patient had been operated on previously by the local application of nitric acid, which, for a time, afforded some relief. She was recommended by her medical attendant to Mr. Croly for further operation. The prolapsus was of unusual size, and caused much distress to the patient. The mucous membrane was congested and thrown into large folds.

The patient having been placed on her left side on the operation table, was told to force down the bowel :—

Mr. Croly then proceeded as follows :—A fold of the mucous membrane of the bowel, close to the anus, was raised with a forceps (in the long axis), and firmly tied with a strong hemp ligature. This was done at four opposite points. The patient did not complain of pain. The prolapsed bowel was then reduced (having been previously oiled), and a piece of ice was introduced into the rectum ; a compress and T bandage were applied. The patient was removed to bed. She then complained of pain, and a full opiate was accordingly administered.

Mr. Croly gave some practical instruction to the pupils on this case, and detailed the various causes which may produce the affection, and the several methods of treatment recommended for obstinate cases of prolapsus recti, particularly observing that in ligaturing or otherwise treating the mucous surface of the bowel it is important to remember that the part of the prolapse near the anus is the portion to be operated on, and remarked on the caution necessary to be observed in not removing too large a portion of the mucous membrane, lest constriction of the gut might eventuate, and said he reserved for further operative treatment (if necessary) Hey's operation, adopted by Dupuytren, which consists in removing radiated portions of integument close to the anus.

REMOVAL OF PORTION OF THE LOWER LIP FOR EPITHELIOMA.

Case 2.—Epithelial cancer involving the right side of the lower lip, in a man aged 50 years, a resident in the Queen's County. The disease, which commenced about two years ago, was attributed to smoking with a short clay pipe. There was no glandular contamination or cancerous cachexia.

The patient was seated in an arm-chair, and the facial arteries having been compressed by an assistant as they pass over the jaw, Mr. Croly commenced by detaching freely the mucous membrane connecting the lip to the jaw, and then transfixed the lip with a long straight bistoury beneath the diseased portion, cutting upwards through the red margin another incision from below upwards, enabled him to remove a V shaped portion of the lip. Three hair-lip pins were introduced, and silk ligature formed the twisted suture. Narrow strips of adhesive plaster were next applied between the sutures, to give additional support.

OPERATION FOR VESICO-VAGINAL FISTULA.

Case 3.—Operation for vesico-vaginal fistula in a young woman from the County of Fermanagh.

The fistula was at the left side, and about as large as a sixpence, with a well-defined lower margin. The upper portion was callous, and there were adhesions above it.

The patient was placed on a prone position, leaning over a table of convenient height. The duck-bill speculum was introduced into the vagina, and held well up by an assistant. As the mucous membrane of the bladder protruded through the fistula, Simpson's sound was passed through the urethra to keep it down.

Mr. Croly commenced by making raw the lower margin of the orifice, and then removed the hardened upper portion. He next introduced six fine iron-wire sutures. A catheter was passed into the bladder ; the patient was placed in bed in the prone position, and a small dose of opium was ordered to be administered every second hour to prevent spasms of the bladder.

We hope to give further details of these cases.

NEWCASTLE LUNATIC ASYLUM.

Under the care of Dr. HUGH GRAINGER STEWART.

THE Pauper Lunatic Asylum of the Borough of Newcastle-on-Tyne, under the management of the present medical superintendent (Dr. H. G. Stewart), is in as good a state of efficiency as is practicable in the present asylum at Bensham, but it is believed that by the end of the year the new buildings will be ready to receive the patients, who will then be much more suitably accommodated. We extract some interesting cases from the last annual report of the superintendent :—

Many cases of great interest have been received during the year. M. E. B., aged 20, married, suffering from acute mania after the birth of her first child, was received almost in a dying state. For months she lay, apparently moribund, without movement, or manifesting a spark of intelligence; several medical men who saw her thought the case absolutely hopeless. By means, however, of very careful nursing and medical treatment, she gradually regained strength and reason, and was eventually discharged recovered. Such a case illustrates well the great value of asylum treatment, where good nursing, and early observation and relief of symptoms, are essential to success. For some time after this patient's return to her friends, she continued well, but soon began to decline in bodily health, and died several months after her discharge from the asylum.

The cases of T. A., a male, aged 53, married, and E. H., a female, aged 40, both of suicidal melancholy, exhibit the value of a long-continued use of the stomach-pump, as a means of introducing a sufficient quantity of suitable food into the system, when it is urgently required, and cannot otherwise be given. At various times, both of these patients have, for months together, been entirely dependent for their alimentation on the use of this intrument. Both are now much better. The man will, it is feared, never entirely regain his reason; but the female is in a fair way towards recovery.

J. B., a male, married, aged 64, was admitted, with his throat severely cut, the windpipe and gullet entirely severed, but, by a miracle, the large arteries of the neck

uninjured. The food he attempted to swallow passed out by the wound in his throat, and irritated the air-passages, bringing on severe fits of coughing. He complained of great thirst, and was very feverish. He was very anxious to die, and, in fact again attempted to put an end to himself by tearing the wound open with his fingers. Recourse was had to the stomach-pump in this case, but great difficulty was experienced in passing the tube, as it was almost impossible to hit on the continuation of the gullet beyond the wound, partly owing to its being much lacerated and inflamed, and also to the resistance the patient offered. This treatment was persevered with, and a good meal was administered twice a day for a month. The patient gradually became most anxious to live, and rendered all the assistance he could to the operation which saved him. The wound healed, and, by placing his head in a certain, attitude, he learned to swallow without any of the food passing into the air-passages. He was discharged recovered. The history of this case illustrates forcibly the value of proper and sufficient nourishment. The moment his system received a sufficient amount of good food and stimulant, an amendment took place in the mental health of this patient—from desiring most ardently to die, he began to wish to live, and promoted that object by every means in his power.

Another individual, who attempted suicide by cutting his throat, was received about the same time; the wound was not so severe, and the patient is greatly improved, but his mind has suffered a severe shock, from which it is not likely it will entirely recover.

A potent cause of disease of all kinds is that condition of semi-starvation in which many of the poorer classes of our large towns must live. On the brain, this continued want of sufficient nutrition has the most disastrous effect. Some of the most violent cases that have come under treatment this year have been directly traced to long-continued deprivation of those substances which are necessary to the maintenance of the body in a healthy state. The treatment of such cases is clearly indicated by the known cause of the malady, and, if the disease has not existed too long, cure may be looked on as almost certain. In some cases the brain, during the acute stage, receives such injury that it never again performs its functions properly, and the individual becomes, during the rest of his life, a burden to his friends or the public. Taken in time, such cases need never enter an asylum; were sufficient relief administered when it ought to be, the patient would be saved from his madness, and the public the cost of his care.

E. F., a male, single, aged 30, the practice of whose art necessitated his having decent rooms and furniture for the reception of his patrons. To keep up appearances, he had long to go on a pinched diet, sometimes actually starving. This continued for months, gradually deteriorating both his body and mind. At last the inevitable crash came in an attack of acute mania. The cadaverous countenance, sunken cheeks and face, pinched by famine, were a strange contrast to the bright eye and hopeful voice which told of wealth and prosperity awaiting him, and boasted of his activity, skill, and success. The cause had been in operation for a considerable period, and the treatment had to be continued for some time before its good effects were manifested, but recovery eventually took place, and the patient was discharged.

CHOICE OF A PRISON.—The following dialogue is stated to have taken place between a visiting magistrate at one of the city gaols and a juvenile offender serving out his three months:—"How old are you?—Please, sir, I'm 13. How often have you been in gaol?—Please, sir, eight times. Have you ever been in Reading gaol?—Please, sir, once. Have you ever been in Westminster gaol?—Please, sir, once. How often have you been here?—Please, sir, six times. Why do you come here so often?—Please, sir, becos at Westminster the turnkeys knocks yer about with their keys. How do you contrive to get sent here?—Please, sir, I allus prigs in Holborn now.—*Pall-Mall Gazette.*

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 3, 1868.

STATE MEDICINE.

THIS subject seems likely to attract considerably more public attention than it has done hitherto. Our readers will remember that the Social Science Association appointed a committee to confer with a committee of the British Medical Association. The co-operation of these committees has resulted in a memorial setting forth at great length the manner in which, in the opinion of the joint-committee, it is possible for the legislature to promote a better administration of the laws on Medico-legal investigations, on the Public Health, on Registration, and on other subjects falling within the sphere of State Medicine.

The next part of the proceedings we have to chronicle is that a deputation has waited upon three of the ministers to point out the changes thought necessary in the laws relating to these matters.

The deputation was a very influential one, including the names of Sir THOMAS WATSON, Dr. BURROWS, Dr. ACLAND, of Oxford; Dr. RUMSEY, of Cheltenham; Dr. SYMONDS, of Bristol; Dr. GAIRDNER, of Glasgow; and others who take a deep interest in State Medicine. But for the short notice that could be given others would also have attended. The deputation urged upon the ministers the imperfections of the laws on registration, pointing out that a certificate of death is not sufficient evidence at the Bank of England, and suggesting that many murders escape detection through the inefficiency of the registration system.

We have so recently commented upon the late attempted frauds by means of certificates of death, that we may pass at once to the other points.

It was desired that a plan should be organized for the registration of disease. There can be no doubt at all, as we have before had occasion to urge, that a registration of prevailing diseases would be an invaluable supplement to that of the causes of death. Indeed, it would be difficult to suggest any more important vital statistics than these; but the difficulties in the way of a complete plan seem to be almost insuperable. It would be impossible to obtain a return of every case he had attended from every medical man in any district. Yet, anything short of this would be incomplete. Still, most important information would be obtained, if a return could be procured from all public institutions of the diseases weekly brought under notice. Again, the Poor-law system affords abundant opportunity of collecting such data; but, as we said when this was lately proposed, the Poor-law doctor is already overburdened with the amount of book-keeping he is expected to perform, and any addition to his duty might fail to be

accompanied by extra pay. Again, we believe that some medical officers of health have made the attempt, but being compelled to rely upon the voluntary assistance of their brethren, and having no funds to remunerate them, the plan fell through. What we appear to need seems to be a large increase in the number of the Medical Officers of Health, and to these posts men should be appointed who are not distracted by the cares of private practice. They should not only be well paid, but should have funds placed at their disposal to enable them to conduct investigations and inquiries, for which the aid of their professional brethren is needed. We fear, however, that such a scheme involves too much for the tax-paying digestion.

Turning now to the general condition of sanitary regulations and State medicine, what do we find? A hopeless state of confusion. It was even admitted by the Ministers at the deputation that the present complicated system is most embarrassing, and the propriety of consolidating the sanitary laws and uniting the Public Medical Departments was said by the Duke of MARLBOROUGH to be under the consideration of the Cabinet. This is certainly good news. It is highly satisfactory that any branch of State medicine should occupy the attention of Government, and as any consideration given to the subject cannot fail to bring out the necessity of change, it would seem not improbable that the Royal Commission for inquiry asked for by the Deputation may in time be granted.

We have not, to be sure, the utmost faith in the results of Royal Commissions, but as it would be manifestly absurd to add to the existing confusion by more patchwork of legislation without sufficient data, and as there is time for such an operation, we certainly think that a case has been made out for official inquiry.

Private effort has done much, and public inquiry may certainly do more, provided that inquiry be intrusted to independent men interested in the questions, and not relegated to mere officials, or to gentlemen who are already committed to the advocacy of any particular scheme.

MASTERS, DOCTORS, AND NURSES OF ENGLISH WORKHOUSES.

ANY one with a taste for unseemly personal squabbles may gratify it at a moderate cost, by a perusal of the papers printed by order of the House of Commons, in reference to the appointment of Mr. GEORGE CATCH to a new workhouse mastership. We are not about to rake up the most offensive details. We only barely allude to the charges and counter-charges made—the giving the lie direct—the heaping of insult upon insult, which exemplify the disgraceful manner in which our Poor-law system works. Whatever may be the faults of Mr. CATCH, and we by no means feel inclined to extenuate them, the system is most to blame which places the medical officer in a position in which his orders may be countermanded, his directions neglected, and his reputation imperilled by the obstinacy or ignorance of an unscrupulous or uneducated person dressed in the little brief authority of a workhouse master. Is it not intolerable that a professional man should be thus treated. As testified on oath in this case, nurses may be told to disobey the doctor, stimulants may be refused although ordered; paupers, with orders for admission, may be kept outside the door all night; the female wards may be intruded upon at night by a man who has no business there; a nurse, sent to get hot water, may be bullied; the doctor may be warned that he will be "taken down a peg or two," and other annoyances, vexations and insults, may go on for months to gratify an ill-tempered, or half-mad master. And what is to be gained by this system of keeping the medical officer in subjection? Nothing but mismanagement and the many iniquities that have recently been exposed.

How would such a plan work in our hospitals, supported by voluntary contributions? Why, the whole medical and nursing staff would resign, and they would be quite right, too!

If a despotism is ever to be exercised it should be by medical men in the sick wards. Here nurses and every other official should feel that medical authority is supreme, and that every one's convenience is to be put aside upon the order of the doctor. This is done in our hospitals. It is done in the homes of the wealthy and the middle classes. It is done in the cottages of the independent poor. But in our workhouses we set up vulgar ignorance, in the persons of the masters, and expect they will not abuse the power we give them. The whole system is bad, and we wonder the medical inspectors have not protested against it.

It is of little importance that the individual whose conduct has been officially inquired into was condemned, after a patient inquiry by Mr. FARNALL; that his temper was found unbearable by all the other officials; that he neglected to supply a pauper with crutches for three months; refused special watchers for lunatics; transferred sick paupers to the infirmary without medical orders, or in opposition to them, or incarcerated a weak-minded female in a small, strong room all night, without light or bedding. These and other things are pronounced proved by the inspector, but are probably no rarities in workhouse management; and that they are but venial sins in the eye of the Poor-law Board is shown by the permission granted to the delinquent to occupy a similar situation in another workhouse. For the sake of the paupers we hope the inquiry that has been made, may have taught him a little more prudence and humanity, and that he will devote his energy in future to helping the medical officer in his arduous duties, instead of thwarting him. If he has not learned a little humility, and is not prepared to give up the idea of taking down his superior "a peg or two," then alas for the patients, and alas for the doctors and nurses. It is to be hoped, however, that these latter, on the first occasion of such offences as have been officially condemned, will put away the fear of Bumbledom from before their eyes, and report the facts—without comment, to show they have no animus—to the enlightened Board that thinks so little of the pauper's peace, or the doctor's responsibilities and trials, as to perpetuate a system by which the patients are deprived of what the country pays for, and the doctor is reduced to a state of helplessness or dependance upon ignorant and vulgar persons who delight in the tyranny of their office.

If the Poor-law Board really thinks the existing plan so excellent, let them try it in their own homes. Let one of them encourage his cook, butler, or footman to frustrate his physician's plans, and see what would be the result. Then let him remember that pauper patients feel, and Poor-law doctors are also human.

OUR attention has been called to the fact that the granular preparations of citrate of iron with strychnine, and also the citrate of quinine with iron and strychnine, recently noticed in our columns, were introduced to the medical profession by Messrs. W. Twinberrow and Son.

PRIESTS AND PHYSICIANS.

THE third series of "the Church and the World" has been published not many days ago; and contains, among other exciting essays, one on the above subject by Dr. ALFRED MEADOWS, a well-known metropolitan member of our profession. To the uninitiated, it may be advisable to say a few words explanatory of the meaning of the phrase, "the Church and the World" in connection with books of this kind. Some years ago the "religious world" (as it is called) was startled by the publication of a now notorious volume entitled, "Essays and Reviews;" to which numerous "replies" were made in the same fashion. Apart from all religious considerations, its publication may be said to have inaugurated a new style of literary work :—A system whereby, instead of one man writing a book, and standing or falling by his views and statements, several join together in publishing a work with one general tendency, with this important *caveat* however, that each contributor is held responsible for his own contribution *only*, and for some essays with fictitious signatures, no one is to be held responsible at all. "The Church and the World" is then the essay department of the Ritualistic, or ultra-high church party in England; and in this light Dr. MEADOWS comes before the public and ventilates his views on "Priests and Physicians." After some preliminary remarks, he states his object as follows :—

"I am anxious above all things to make it understood that my aim is essentially of a practical character. I desire, if possible, to extend the influence of the Priest and the Physician in their respective spheres of action, believing, as I do, that the usefulness of both would be enhanced by a closer communion between the sacred Order and the godlike Profession. The questions then which I propose to consider are :—Whether the study of medicine can be made in any degree advantageous to the Parish Priest? Whether any good would result from a more intimate association of Priests with Physicians? And, whether the study of the science of Theology, if I may so term it, might not with advantage be made, at least optionally, to form a part of the ordinary curriculum of study required for the proper education of the physician?"

A considerable part of the essay is occupied with fencing in the rather dangerous ground on which the essayist treads. To advocate priestly dabbling in physic, and yet to prevent the priest being a quack; and to advocate close operative union between the physician and the priest, and yet to prevent the physician doing the amateur parson, are questions so difficult as to render them all but impracticable for good results in this country. If theology be a science requiring learning and long study, no mere tyro should take on him to meddle therewith, even though he be a physician; and as the science and practice of medicine exist among us now, the idea that the priest could do the physician also, is out of the question. In the working of missions among the heathen the matter is different; but even there experience has shown, that if the priest desire to practice physic, he should learn to do so in the ordinary way, and qualify himself by education and examination, like any other man.

In the essay above referred to, Dr. MEADOWS gives a short history of the ancient connection existing between the clerical and medical professions, or profession, to speak more accurately. In alluding, however, to the prohibition of the study of medicine by ecclesiastics, issued by Pope INNOCENT II. in the twelfth century, he has omitted to state that this enactment was almost a dead letter in England at all times. Dean HOOK, in his "Lives of the Archbishops of Canterbury," has clearly shown that in mediæval times the ecclesiastical establishment in England was made use of by the State to pay its most important functionaries. All, or nearly all, useful public men took holy orders at sometime or other of their lives. When the King wished to remunerate a great lawyer, he gave him Church preferment; he did the same for an ambassador, and for his physicians. MUNK'S "Roll of the Royal College of Physicians of London," shows that the earlier members of that body were beneficed clergy, and when we consider the present use of Woburn Abbey and other ecclesiastical foundations, of which the State may yet resume the control, we must not forget that, down to the time of the general dissolution of the religious houses in these countries, one important function discharged by them was the care of the sick poor, by monks trained as physicians; so that when HENRY VIII. laid hands on the property of the Abbeys and Monastries, the entire extent of the land—says Lord MACAULAY—was, with one or two exceptions, deprived of all medical and charitable relief for the sick and the poor. Long after the priests were wholly forbidden to practice *Surgery* (because it involved the shedding of blood), they were allowed to cure the sick, when it was not done for gain; in other words, when it did not withdraw them from clerical work.

On page 506, referring to the statute of the London College of Physicians, prohibiting Clerks in Holy Orders from being admitted to examination for medical license, Dr. MEADOWS says—"Thus was completed the severance between the Clerical Order and the Medical Profession."

This is incorrect. Our profession as a body has never made any such severance. There is not, we believe, any such rule as that once made in London, in force in Edinburgh, and certainly not in Dublin.

On page 17 of the last edition of the "Register of the King and Queen's College of Physicians in Ireland" (compiled, we understand, by Dr. BELCHER), is this statement:—"Any Clerk in Holy Orders, or any Barrister-at-Law, if qualified in other respects, may become a candidate for the license; or, if a Licentiate of sufficient standing and qualification, may become a candidate for Fellowship; and any Fellow or Licentiate who may take Holy Orders, or be called to the Bar, continues to hold his collegiate position, so far as the College statutes and bye-laws are concerned." To this statement is annexed the following note:—"At present [1866] there are two Fellows, two Honorary Fellows, and three Licentiates in Priest's Orders of the United Church of England and Ireland. One Licentiate is in Deacon's Orders of the United Church, and one Licentiate is a Barrister-at-law."

Nor has the Church of England made any such severance between its clergy and our profession. It is well-known that a priest of that church may keep school and practice physic, while he may *not* engage in *secular* callings.

As historical facts, it is also known that many of the English clergy who refused conformity in 1662, supported themselves by practising physic, as did several of the non-juring clergy and bishops, who were staunch advocates of Church authority, at a later time.

The last of the non-juring bishops, whose name was BOOTHE, practised surgery, and died in Ireland in 1805; another, named CARTWRIGHT, was an apothecary in Shrewsbury, and died there in 1799; and a third, named DEACON, was a physician of note in Manchester, where he died, and was buried in St. Ann's churchyard, in 1753.

There is no canon or civil law, that we are aware of, connected with the Established Church, which prohibits a Clerk in Holy Orders practising medicine.

Dr. MEADOWS concludes his essay thus:—

"There is, methinks, something strikingly suggestive in the historical fact of S. Luke, the Physician, whose praise is in the Gospel, being called to be an Evangelist and Physician of the soul; and well might the Colleges of Physicians of our day with one heart and soul join with the Church in appropriately celebrating his Festival with holy joy, and praise, and thanksgiving. We have our commemorative festivals in honour of Hervey and Hunter, as shining lights in the regions of science; why not then of S. Luke, whom the Gospel exhibits as a pattern Physician? His recognition and commemoration would surely tend to elevate our calling now, as his Divine call undoubtedly did then. May the time be not far distant when such a recognition will be the spontaneous act of a body of men as truly united in one holy bond of Faith, as they now are in works of Mercy."

On this we can only remark that in Dublin, at least, this idea is neither strange nor new. In the Register of the Dublin College already quoted there is the following note on page 9:—

"At one time the College used to attend St. Luke's Church in this City on St. Luke's Day: '*Ordered*, that the Treasurer be directed to pay to Dr. Mitchel three half crowns, to answer the expence of printing the certificates signifying our meeting at St. Luke's Church.

"'*Ordered*, that the President and the two elder Censors do wait upon Mr. Campbell, and return him the thanks of the College for his excellent sermon, and that he be desired to print it at the expence of this College.

"'*Ordered*, that a piece of plate, not exceeding two guineas, be given to Mr. Campbell for his sermon preached before the College at St. Luke's Church.'"

Coll. Journal, 18*th October*, 1729.

"This sermon is to be seen in the College Library. It is printed in 4to., and has for its text a passage from St. Luke's writings—'In Him we live, and move, and have our being.'"

Notes on Current Topics.

The Public Health.

THE returns of the Registrar-General vary but little from those of last week. In London and 13 other large towns of the United Kingdom were registered 4564 births and 2787 deaths in the week that ended on Saturday, 23rd May—the annual rate of mortality being exactly the same as the last, 23 per 1000 persons living: distributed as follows:—21 per 1000 in London, 23 in Edinburgh and Bradford, 22 in Dublin and Bristol, 19 in Birmingham and Hull, 24 in Liverpool, 28 in Manchester and Glasgow, 26 in Salford, 29 in Sheffield, 25 in Leeds, 20 in Newcastle-upon-Tyne.

The deaths registered in London were 1252, being 74 less than the estimated number.

The deaths from zymotic diseases were 300. Thirteen deaths from small-pox, 64 from measles, 35 from scarlatina, 6 from diphtheria, 59 from whooping-cough, 38 from fever, and 19 from diarrhœa were registered.

One hundred and sixty-two deaths occurred from phthisis, 87 from bronchitis, 70 from pneumonia, 42 from diseases of the heart, and 151 from diseases of the brain and nervous system.

A child aged four years died of "Asiatic cholera" in 24 hours; 8 infants died from syphilis; 2 children and 2 adults from burns or scalds; 7 persons were drowned; 8 infants and 1 adult were suffocated; 5 persons committed suicide; and 3 were killed by horses or carriages in the streets.

Royal Geographical Society.

ON the 25th May last the anniversary of this society was held at Burlington House, Piccadilly—Sir R. J. Murchison, the President, in the chair. Several new candidates were proposed, among whom was Sir R. Napier, Commander-in-Chief in Abyssinia. The Secretary read the report, from which it appeared that the finances of the society were in a satisfactory state. The funded capital was £15,500, the whole of which will be required for the erection of a building for the society. A site has been promised by the Commissioners of Crown Lands opposite the Thames embankment. The President delivered his annual address on the progress of geography, during which he referred to the course of Dr. Livingstone in South Africa. From the date of his last letter, and a reference to the track he was pursuing, the hon. President considered that the great traveller might possibly reach England in August next. He spoke in eulogistic terms of the Abyssinian expedition, and concluded by returning his thanks to the society for the support it had invariably afforded him while performing his duty, and repeating that they should select a younger man to fill the distinguished post he had so long accepted. The anniversary festival was celebrated in the evening. The dinner was served in Willis's Rooms. Toasts were given and replied to by many of the noble and learned gentlemen who were present, after which the company retired.

British Association for the Advancement of Science.

THE Association has issued the preliminary circular of its thirty-eighth meeting, which will be held at Norwich on August the 19th, 1868, under the Presidency of Joseph Dalton Hooker, Esq., F.R.S., D.C.L., &c., Curator of the Royal Gardens at Kew.

The fact that Norwich has never before been visited by the British Association, the character of its manufactures, the highly interesting geological features and archæological remains in the surrounding district, with a hearty desire worthily to receive the association, will combine, we trust, to make the meeting thoroughly interesting and successful.

Norwich, from its short distance from London and the Universities of Oxford and Cambridge, is easily accessible to members desiring to be present.

The opening address will be delivered in the Drill Hall, on Wednesday evening, the 19th of August, at eight o'clock, by Joseph Hooker, Esq., F.R.S., D.C.L., &c., President elect. Soirées will be held in St. Andrew's Hall on the evenings of Thursday, the 20th, and Tuesday, the 25th of August. Evening lectures will be delivered in the Drill Hall, on Friday, the 21st, and Monday, the 24th of August, at half-past eight o'clock. Various excursions (geological, archæological, and ethnological) have been arranged to take place on Thursday, the 27th of August, to Cromer and its district, to Hunstanton, to Holkham, Castle Acre, Diss, Hoxne, Thetford, &c., full details of which, with times of trains, will be published in due course. Minor excursions, within a short distance of Norwich, are in course of arrangement, and will be notified at the time of meeting.

The Medical Council.

THE forthcoming meeting of the Council is looked forward to with a certain amount of languid interest, betokening how weak is its hold on the profession it so little represents.

Again and again have we pointed out how egregious a failure this same Council has been. But for some few men embued with liberal principles we should have no hope of it.

What with education, which is likely to be brought forward with considerable ability, and the perpetual attempt to tinker the Medical Act, we fear little time will be allowed to the one subject that interests the general practitioner, viz., the mode in which the reform of this Council can be effected.

The time is come when members must pronounce whether they will fight for things as they are, or accept the reforms that have been suggested.

St. Thomas's Hospital, London.

THE biennial dinner of old students took place last Thursday, under the presidency of Dr. Barker, at the City Terminus Hotel. Some 200 sat down to dinner, and we noticed with satisfaction a good attendance of the staff, and a very friendly feeling pervading the room, rendering this kind of renewal of intercourse evidently one that gave considerable pleasure to all parties. It was rather unfortunate that it was not possible to have the dinner the same day as the ceremonial of laying the foundation stone of the new buildings. We may, however, congratulate all concerned on the success of both events.

Army Medical Promotion.

THE letter of the Director-General of the Army Medical Department to Dr. Mackesy, which appeared in our journal this time last year, has elicited an elaborate reply printed in the form of a Parliamentary paper, and signed "One of Ten Years' Service." In his communication the Director-General stated that :—

"With regard to the returns laid before Parliament, the number of promotions in each year is not a reliable means of testing the probable rate of such promotion, inasmuch as, in such a calculation, no note is taken of casualties arising from other causes—such as death, resignation, and retirement upon half-pay, &c., all of which contribute to advance the juniors to the top of the list.

"I have to add that at present assistant-surgeons of twelve and a half years' service are getting their promotion, and that, considering they thus attain the relative rank of major, they are as a rule considerably in advance of their combatant brethren, and have, in consequence, no cause of complaint on this ground, which is not equally applicable to all other branches of the service."

"One of Ten Years' Service" endeavours to meet this statement by the reply that, as the number of Assistant-Surgeons for promotion above the survivor diminishes, so the chances of casualties become fewer, till, finally, his steps are reduced almost to those given by promotion only. But, in any case, it is evident that the Director-General's statement is perfectly correct, and that the vacancies for the promotion of assistant-surgeons, especially as long as they are low on the list, are entirely misrepresented by the Parliamentary return, which has been energetically and, we must add, disingenuously circulated by the discontented party amongst the army medical officers.

As long as the demands of assistant-surgeons constituted a just claim on the government, we exercised every influence in our power in their support. Now we believe that concessions have been made as far as the service either requires or permits, and we have no sympathy with a prolongation of agitation, which, we believe, has been the principle cause of the bad feeling of the military authorities towards army medical officers. Reform in the medical department is now converted from a legitimate demand for justice into an attempt to coerce the authorities by keeping back the candidates for appointments in the service. Surely "One of Ten Years' Service" must be "gravelled" for a grievance when he makes one out of the fact that an assistant-surgeon is "in a subordinate position," and that he is liable in the discharge of his duty to be sent to such places as Belge, Corosal, Honduras, the Mauritius, Gibraltar, and Malta. Is the cry to be "No foreign service and universal equality ?"

For all the exponent of the grumblers may say the fact remains that, since the late reforms came into force, the army medical department enjoys a sufficient supply of candidates for appointments, apparently as well educated and as eligible for the service as "One of Ten Years' Service." We venture to suggest that grievance-farming, especially when carried on by misrepresentation, will not meet with the sympathy of any more important class of assistant-surgeons than the "used-up" class who are incapable of adopting them to the roughnesses of their path in life.

The Aggregate Meeting of Poor-law Medical Officers.

THE proposed meeting of London and Provincial Poor-law Medical Officers, called by Dr. Rogers, and to which we have several times referred, has been fixed for June 24, at the Freemason's Tavern, at 2 P.M. We sincerely hope that it will be numerously attended, not only by Poor-law men, but by all interested in the state of the profession. We have to report, in connection with this, that it has been thought advisable that the proposed co-operation of the Medico-Political Association should only extend to its individual members lending such independent support as they deem proper. The meeting, therefore, will be conducted by friends of the Poor-law Medical Officers, under the leadership of Dr. Rogers. Mr. Clements, M.P., will preside on the occasion, and many eminent members of the profession will, it is hoped, lend their support to their over-burdened brethren.

Parish of St. Pancras.

WE have previously mentioned the many improvements that have been carried out by the guardians of this large metropolitan parish. The report of the Chairman of the Board (Mr. W. H. Wyatt) was issued last Wednesday as a Parliamentary paper. It is very complete and very satisfactory, and shows most fully the direction in which guardians may act to ameliorate the administration of our Poor-law. The St. Pancras Board has set an example which, we trust, may be generally followed. It is sad, but true, that such is the state of the Poor-law administration that we have to mention as a rare thing the fact that a Board of Guardians has shown itself both humane and enlightened.

Lyon and Home.

FROM the first day when the evidence in this case was laid before the public, we believe there was hardly any per-

son free from prejudice who did not see on which side the justice of the matter lay. The unvarnished fact remained, after all the conflict of evidence, that Mrs. Lyon made over her property to Mr. Home because, from his own representations, she believed in his supernatural powers. It is not at all necessary for us to believe (although there is hardly room for doubt on this point) that Mr. Home brought to bear, for his own objects, the influence of Mrs. Lyon's dead husband. It is sufficient for us to know that Mrs. Lyon made over her property to Home in consequence of her belief in his spiritual agency—that she would not have done so but for such belief, and that Mr. Home, by fraudulent representations, constituted to establish that impression.

There was, therefore, no escape from the decision that Mrs. Lyon had been "done" out of her money, except by the supposition that the spiritual manifestations were real scientific phenomena, of which Mr. Home was the honest exponent. Credulity has not yet been developed up to that point, and, of itself, the fact that the result of the manifestations was to put £60,000 in Mr. Home's pocket, is particularly persuasive for the public that the whole proceeding is a deliberate swindle—ghosts, the sole object of whose return across the Styx appears to be the frightening of imbecile old ladies in the interest of Mr. Home, cannot expect to receive recognition from the Vice-Chancellor.

By one excuse or another Mr. Home has contrived to wriggle out of investigation of his performances tendered by Professor Faraday, and now again by Mr. Tyndall, and this spiritualism being exposed both in its corrupt motives and its scientific falsity, is accepted after all as nothing but a trick put to bad purposes by its unprincipled authors.

Over the Alps.

Fifty years ago not a rail was laid down; not a locomotive was in existence; and when, subsequently, the great steam-horse was brought out and put into harness, it was thought necessary to level the roads. It would be hazardous to drive him down a decline, and there was no possibility of forcing him up. Viaducts were thrown across long valleys, and tunnels were cut through swelling hills. There was no help for it, and we were happy enough to avail ourselves of his untiring speed at any rate. But only a few years have been necessary to prove that he can go up hill, that he can go down, and that he can sweep round a narrower curve than ever was dreamed of with perfect safety. A railway train has been over Mont Cenis, by the road chiefly along which the diligence crawls at the rate of three miles an hour. On the 23rd May, one of the trains conveyed the Duke of Sutherland, Chairman of the Company, and 53 others interested in the undertaking, from Susa to St. Michel, where they dined in celebration of the enterprise. The opening of the line to the public is fixed for Monday next, the 8th June.

A Railway Tunnel.

Perhaps it may be an advantage in some respects to have twenty miles of sea flowing between our own and the French coast. At all events, it precludes the possibility of any quarrel on the boundary question. Still, there are inconveniences attending it. We seem to need, in the present state of our relations, a readier method of communication than is afforded by navigation. Several plans have been suggested. The most practicable one appears to be that of a tunnel for a railway underneath the bed of the sea, which is found not to be too deep to prevent the undertaking. A careful examination has been made of the soil on each side of the channel, and it is thought that a railway might be completed with no greater difficulty than is met with in works of that kind. Unless some unforeseen obstacles should prevent, it may be expected that the two countries will be connected in this manner before a great many years have passed away. Another design of a bridge, or succession of bridges, has been submitted to the Emperor by a French engineer. Whether it is at all likely to succeed it is impossible to say.

The Scotch Universities.

The Reform Bill for Scotland seems likely to remove a grievance, inasmuch as it will confer on medical graduates the privileges of electors in many questions from which they have been hitherto debarred. We have all along urged the claims of the Scottish Universities to larger representation than has been accorded, and we understand that our views have been pressed upon the authorities by influential parties. It will afford us pleasure to find they have succeeded, although, in the present state of the political world, we are not very hopeful of more than has been promised. It augurs well, however, that the justice of the case has not been refused a hearing.

Portrait of the late Mr. Cusack.

A fine portrait of the late Mr. Cusack, who died some years since, the father of Surgery, and one of the most esteemed and successful practitioners in Ireland, has been presented to the Royal College of Surgeons in Ireland by his son, Mr. Ralph W. Cusack. The portrait, which is most striking in its resemblance, was received by the Council on Thursday last, and was ordered to be placed at once in the Board-Room of the College, along with the portraits of Mr. Abraham Colles and Dr. Arthur Jacob, and a vote of thanks was passed to Mr. Ralph Cusack for his valued gift. Mr. Cusack was for many years Secretary to the College.

At the same meeting of Council, it was resolved that the portrait of the late Dr. William Kingsley, of Roscrea, the founder of the Royal Medical Benevolent Fund Society of Ireland, be moved from the Fellow's-Room to the Board-Room, which now contains the pictures of Dr. Rennie, who was mainly instrumental in obtaining the original grant for the building of the College, Mr. Herthorne, its first Secretary, Mr. Abraham Colles, Dr. A. Jacob, Mr. Cusack, and Dr. Kingsley.

ON SOME POINTS CONNECTED WITH THE PRESENT ASPECT OF MEDICINE, OR ON THE EXISTING STATE OF THERAPEUTICS.

By W. H. DAY, M.D., M.R.C.P.,

VISITING-PHYSICIAN TO THE INFIRMARY FOR CONSUMPTION, MARGARET-ST.

(*Read before the Medical Society of London, May* 4, 1868).

In an age when the plea of antiquity is not allowed to protect a creed or an art from the spirit of free inquiry; when in excess of all that is wholesome in this spirit, novelty and experiment are more attractive than the practical realities which science and experience have established, it requires much resolution in a speculative profession like that of medicine, to weigh cautiously the importance of each new theory before assigning to it any value, and to hold ourselves aloof from the adoption or recognition of any system, which has not true scientific principles for its basis, and honest men for its advocates.

In such an age it is not to be wondered at that the inviting allurements of homœopathy should have often dealt a heavy

blow to the use of legitimate medicine, and encouraged dissatisfaction with ourselves and our art; and, indeed, the fact that nothing exact can be laid down as reliable of disease, has infected even ourselves, and made us prone to stray from the path which has led to some success, and which would lead to still greater, if we earnestly and unflinchingly pursued it. If we inquire for a moment the cause of this, and how it is to be explained that many other false methods of dealing with disease have found supporters, I should say that we practitioners of medicine have in a great measure brought this on ourselves, by our uncertain utterances as to the value of medicines. One remedy after another has been declared by prominent members of our profession unworthy of any confidence, nay, now and then a voice is heard from amongst us, loudly declaring that remedy retards recovery, and but interferes with the efforts which nature itself is making to ward off the threatened attack of disease, or to combat the deep-rooted malady. In this respect the spirit of medical opinion can scarcely fall lower than at the present time; it has fallen so low that it is alarming to the very physician, whose own eyes have seen that mercury can cure syphilis, and bromide of potassium lessen the seizures of epilepsy; that oxalate of cerium, in large doses, can effectually stop the vomiting of pregnancy; and that quinine can arrest the paroxysms of ague. He beholds with dismay that one remedy after another is rejected and pronounced inert, after having reason to believe that he has saved life under their judicious administration, and that they exert a decided influence for good.

When I have seen a patient long suffering from a hard syphilitic tumour, attended with languor and cachectic misery, and with no chance, if left to himself, of any relief from his suffering, when in such a case I find that without changing any of the circumstances, I can, by the use of mercury, render the patient light and elastic, I can come to no other conclusion than that the mercury has been the cause of cure. I know of no other remedy with which we are acquainted that can effect this, and hence I say that we have a valuable remedy in the cure of certain forms of syphilitic disease. There are, however, many honest and independent observers, who would not subscribe to this opinion of the value of mercury, and who would assert that they have cured similar induration by other means. But even granting for a moment that there are other remedies, that does not affect the fact that mercury is an established remedy, and should be declared as such. Let me take another instance:—The tonsils are inflamed and covered with lymph, and suppuration is impending. Now, if we can ward off this crisis by painting the tonsils freely with the solid nitrate of silver, we infer, and rightly so, that the remedy has controlled the inflammatory action, and arrested further mischief.

So, again, if in the excitement of delirium tremens, when the aspect is wild, the skin sweating, and the patient sleepless and resisting food; if in this state a dose of opium tranquillizes the nervous system and brings rest and returning appetite, I say we are shown to have at our command a priceless drug, the value of which cannot be over-estimated. Let it be understood that I do not advocate the general treatment of delirium tremens by the opium plan. I merely give it as an example to illustrate my meaning. In order to increase our insight into disease, it is imperative that we come to some conclusion, whether remedies have a beneficial or a controlling effect, or whether, as some suppose, they may not frequently, from the dose in which they are given, have no effect at all. We have converts to all these doctrines; some, as I have said, insisting that drugs are almost valueless, and that nature is adequate to deal with disease, provided ordinary care and attention are bestowed on our patients; others insist that the timely administration of a remedy proves curative and renders the constitution less liable to future attacks. And again, I am not venturing too much when I say that there are really some who teach or think that medicinal agents are rather the tormentors than the antidotes of human suffering, and that the great lesson we have to learn is to wait and watch. Surely great and energetic efforts are needed to settle these discordant views, that medicine may have her true position; and we should proceed honestly and openly to work out the problem, for amid the convulsions of unsettled opinion and the calumnies of unscrupulous detractors, nothing satisfactory can be expected to result. Ours is a high and humanizing mission, and he is the noblest benefactor of our art who sifts the real from the unreal and the true from the false, and who deduces his opinions from the operations of nature rather than trusts to the fancies of his imagination and the shallowness of idle theory. Bacon has wisely remarked that "time is the greatest innovator," and it would be irreconcilable with human progress and invention if it were not so; but when changes are revolutionary and rapid, men's minds are not ready to receive them, and then ensue doubt and confusion and disorder, and the slow-growing tree of steady advancement is preferable, and when matured will bear a sounder and a richer fruit. The question I would put to you all is this: is there not a sufficient amount of medical theory which has been submitted to verification (in many unexpected ways, unforeseen by the original theorists), that is as impregnable from assault as the law of gravity has been rendered by the multitudinous discoveries of astronomy? In trying to answer these questions it has often struck me that if physicians were unanimously agreed on one method of research we should reap a richer harvest of information than we now do by reason of men going separately and antagonistically in the same field of inquiry, and then disseminating amongst us a crude and heterogeneous mass, from which nothing definite nor clear can be extracted. Now, the same constitutions, the same diseases, and the same influences are common to all observers; and so far it might be expected that some similarity of induction would result. But, on the contrary, it is rather the exception than the rule for *two* physicians to prescribe alike, although they might fully concur in their opinion of the case before them. One has great faith in remedies, the other has none; one physician sees fit to advise the discontinuance of treatment, when another, in all honesty and good faith, deems it necessary that medicines should be diligently persevered with. This contrary advice shakes the confidence of the public, and shows discord in our camp. If therapeutics could be reduced to something like precision and exactness (as ere long we hope will be the case), we should not find diseases so tossed by the tempest of medical opinion, for we quarrel with their treatment rather than with their essential nature. If long habit and fair results in the use of a few remedies have not shaken all our faith, we are gradually separating ourselves from them, and so the thousand-and-one quackeries of the day are flourishing. Our cases for the administration of drugs are not sufficiently analysed; some are amenable to them and yield at once; others do not yield sensibly to them, or they create additional constitutional disorder. For instance, I once saw a case of severe hæmatemesis from ulceration of the stomach, kept up by the exhibition of astringent and other medicines. The hæmorrhage was always increased, and frequently brought on by the use of drugs, but it became evident that the patient's life was in as much jeopardy from the use of medicines, as from the disease itself. For some days nothing but iced-water was taken in small and repeated quantities, and later a little milk was added, and so increased, till the ulcer was healed, and the stomach could bear the food and nourishment of health.[1] Again, I have seen diarrhœa over and over again kept up by drugs, when rest and repose of the irritated organs were alone needed to calm the excessive action of the bowels. Now, in both these cases the fault is not in the remedy, but the error either of selecting the drug, or of the disease for which it is employed. Uncomplicated diseases, not tending to organic change, are disposed to run their course to a satisfactory conclusion, with very little aid from medicine, where the bodily powers are good, and the patient is not awakened to alarm. The administration of proper food and nourishment, and perfect repose of body and mind are important agents in the overthrow of disease, and one of the great fallacies of the age is, that men trusting to medicines alone, have in too many instances disregarded these points. It has occurred to all of us to see this repeatedly, and to give a favourable prognosis accordingly. To carry a patient partially through an illness is often to combat its worst phases, and to place him in the most suitable condition for recovery. By arraying ourselves in hostile opposition to facts, we invite the scepticism of the public, and expose ourselves and our profession to obloquy and distrust. To disarm doubt and suspicion is to ensure confidence; we impress and convince where we are most candid and open, and admit our failures and defects. I do not consider we receive a new remedy in a fair manner—we do not weigh its value, and unwarped by prejudice, seek to find out the limits of its utility; we either adopt it blindly and enthusiastically, or we resist it altogether. It was so

[1] Since writing this paper, I have read two very interesting cases in the *Lancet* for April 25th, 1868, "On the Treatment of Ulcer of the Stomach," by Dr. B. W. Foster, of Birmingham. He recognises the therapeutic value of rest in medical as well as in surgical practice, and trusts to injections of beef-tea, milk, &c., in preference to pouring medicines and food into a sensitive and painful cavity. His views fully accord with my experience of the treatment of this affection.

with the Turkish-bath. A few years ago it took us by storm, and was held to be the great agent in the cure of disease, the eliminator of morbid poisons and inflammations of all kinds. It was to cure gout and rheumatism, epilepsy and insanity, asthma and consumption, paralysis, and a host of other formidable diseases. It had an ephemeral reputation, and gradually lost much of its popularity, and from the indiscriminate selection of cases, undeserved attacks were hurled against it. Looking at the question in an unbiassed light, and entirely from my own limited observation, I can testify that it is one of the most valuable agents we possess in the cure of many diseases in proper cases. A gentleman, 40 years of age, having reason to think a very acute attack of gout was coming on, prepared himself for the event. He went to bed, and was awoke in the night by the most excruciating agony in the foot; the part affected rapidly swelled and became vividly inflamed. In the morning he went into the Turkish bath at 190°, and remained in till the loss of perspiration was something fabulous. The next day he was free from pain and all discomfort, and his foot bore not the slightest trace of the invasion. He at once left London, and never felt in better health. Now, no colchicum nor saline purges could have so speedily and satisfactorily brought about a cure, and the patient being strong and vigorous, it was most adapted to his case. I could adduce many other striking examples.

There is, in all constitutions, a certain reserve force, which is drawn upon by the emergencies of disease more or less. He who possesses the most and least draws upon it, so much the better for him in the time of sickness and advancing life, but he who is always coming to it day by day to keep up his health, he who feels a necessity for this early loan, is taxing dangerously and immoderately the whole excretory apparatus of his body, and is draining his blood of its most important ingredients. It must be noticed that where this great drain is going on, the appetite is often craving and excessive, the tongue clean and pallid, the pulse soft and relaxed, the heart disposed to irritability, and murmurs of anæmia not unfrequently present. Where great purulent discharges are taking place, as in the expectoration of phthisis, and in the draining of chronic abscesses, so long as patients can eat well, and take quinine and porter, they bid defiance, as it were, to the progress of these complaints, but when the appetite fails, we know the activity of the disorganising process, and the rapidity of dissolution. These baths daily persevered in must abstract an enormous amount of fluid from the body, and it is in this way that gouty and rheumatic patients find relief. These are they who express most confidence in them, and who certainly are most benefitted, whilst the attacks are acute and active, and there is an abundance of adipose tissue. Here the skin, by doing a large amount of duty, relieves the internal organs, and helps to ward off the mischief which would otherwise accrue to them. But when these patients have experienced repeated attacks, and the joints are getting stiff and contracted, the baths aid the evaporation of the synovial fluid that is left, and before any relief is obtained, every ligament and muscle is relaxed and stretched to the utmost. I have adverted to this subject because many of my personal acquaintances are in the habit of using these baths without seeking medical advice. I think it must be admitted that we have a certain definite action in the treatment of these disorders by the Turkish-bath, which, in acute cases and strong subjects, effectually rids the constitution for a time of the *materies morbi* of gout and other allied affections, and with greater celerity, and with less cost to the sufferer than by other means, for there are no drugs with which we are acquainted that produce such a chemical change in the blood that shall cure the predisposition to these disorders. All the remedies that are recommended have an alternative and eliminative effect, in the same way that these high temperatures open the millions of pores in the human skin, and drain off

> " . . . the perilous stuff
> That weighs upon the heart."

Gouty inflammation seldom invades the joints so long as the skin and kidneys are actively performing their functions, and the pressure of the poison is not too great upon them. The disease may be lurking about in the system, although not showing itself by any local manifestations, or even giving rise to any appreciable discomfort. The vigorous functions of health are sufficient to purify the stream, and the patient goes on his course for months, and it may be for years, performing his accustomed routine of daily duty, but any indiscretion in diet, cold, anxiety, extra fatigue, or whatever causes may tend to upset the balance of his health, will be enough to provoke the enemy. There are many other disputed points in medicine which I should like to have touched upon, but the allotted time is nearly exhausted, and I must already have wearied you with the length of my observations. Sir, I am well aware that the hints and suggestions I have thrown out this evening are most imperfect, but I trust that they may prove suitable topics for the serious and unprejudiced consideration of the Fellows of this Society; many of whose minds are comprehensive in grasp, and subtle in reasoning, far abler to work out in detail questions that I can barely enunciate in the commonest words. And if I am fortunate enough to awaken the attention of any to the gravity of the questions I have cursorily glanced at, I shall rest assured that I have not occupied your attention in vain. Great facts in medicine are not the growth of to-day, nor of yesterday, they are the ripe fruit of diligent inquiry, directed in an even and unvarying course; they may be likened to the plant that is pruned carefully of all weeds and hurtful hindrances, till it has sprung forth and stood firmly and alone, destroying, by force of sheer exhaustion, whatever can retard its progress to perfect development.

MEDICAL SOCIETY OF LONDON.

MONDAY, MAY 11, 1868.

Dr. RICHARDSON, F.R.S., President, in the Chair.

Present—35 Fellows, 8 visitors. The following gentlemen were admitted Fellows by the President—John Brady, Esq., M.P.; Dr. Harrington Tuke, Dr. Hughlings Jackson, Dr. Richard Davy, Dr. Junker, and Mr. Geo. Gregson.

The PRESIDENT exhibited a reflecting stethescope, which he had invented. It combined a mirror for examining the throat, an ear speculum, and a stethescope, and was very portable.

Mr. HENRY LEE then referred to a subject which had been under discussion at a previous meeting. He had then stated three propositions, one of these was that no secretion elaborated in a gland in the human body would convey syphilis. The report in the journals, which was otherwise most correct, would make it appear that he had excepted the seminal fluid. He believed that the seminal fluid would not *per se* communicate syphilis, when it apparently did so he thought it was by the admixture with the secretions from the mucous membranes, and this would account for the fact that a father who was syphilitic would sometimes have healthy and sometimes diseased children.

Dr. SANSOM showed for the patentee, Mr. John Sörensen, an ingenious and simple self-cooking apparatus. It consisted of a box thickly padded with felt inside, and capable of holding a properly fitted saucepan or other cooking utensil. Mr. Mason had visited the patentees establishment at two o'clock on the day of the meeting, and had seen some beef-tea, Irish stew, and a veal-steak pudding put into cold water, and brought to the boiling point, at which they were kept for about ten minutes, the saucepans were then placed into the isolating apparatus, and Mr. Mason sealed the box.

At the meeting the seal was broken, when the pudding, &c., were found quite cooked, and as hot as if at the fire.

The PRESIDENT read a paper "On Animal Force" in further explanation of his views, and in answer to the exceptions which had been adduced by Dr. Broadbent, in respect of the use of the word attraction, which had been objected to, he (the President) did not care about the term. He contended that the term might be applied in the most absolute manner to express the relation between force and matter. On the question, what is the associated change in nervous matter when it becomes charged with force, the President said he might ask Dr. Broadbent what was the associated change in the matter of soft iron when it became a magnet, but he would prefer not to reason in this way. There was a distinct associated physical change in nerve-substances during recipiency of force, and that probably consisted in change of form or condition of matter, and change between the fluid and solid state of matter. If any change occurred in the nerve from electrical current, he premised it would be from electrolytic decomposition of animal matter.

Dr. BROADBENT, after thanking the President for his able address, said he could not yet accept his views, and hoped to bring before the Society, at some future time, a paper which would bring this subject under discussion.

Dr. SEDGWICK said, that in answer to Dr. Broadbent's objection that matter cannot attract force, he would instance the

case of a bright metallic mirror which would reflect rays of heat falling on it, and that if blackened it would absorb them ; in the former condition it might fairly be said to repel, in the latter to attract heat, the physical condition of the mirror being the cause of the difference.

Mr. ALFRED HAVILAND read a short paper "On the Effects of the Morbid Secretion of Milk," and related a case in which a perfectly healthy child, aged nine weeks, was seized with purging and vomiting immediately after taking an evening meal composed of asses milk, which had been yielded after a forced journey of many miles, during which the ass had been much maltreated. He thought that milk may become suddenly poisonous from some causes, and often gives rise to convulsions in children. In all such cases a complete change of diet was absolutely necessary.

Dr. ROUTH thought excitable people should not be employed as wet nurses, and believed that convulsions and other ailments of children, are due to the excessive acidity of the milk. Lime-water or soda would produce the desired alkalidity.

Dr. ANDREW CLARK in conjunction with Mr. PETER MARSHALL, "On a Case of Basic Complex Lung Disease resembling Phthisis." The case was that of a clerk, aged 26, who had had good health until 1863, when he caught gonorrhœa and orchitis ; he afterwards had a chancre, for which he was salivated, but he never had any secondary symptoms. In 1864 he began to experience a sensation of knives running into his right side, and in 1867 he was admitted into the London Hospital, with chronic pneumonia and gangrenous abscesses of right lung, and fibrinous pleurisy of both. The patient died in March, 1868. The author then gave the details of the post-mortem examination, and came to the very important question :—"What was the origin and nature of the patient's malady ?" He said that there were but two possible answers —one, that the local lung disease was the result of an ordinary inflammation ; the other, that it was set a-going by the transference of morbid matter from the diseased testicle to the lung. The author then referred to fistula in ano in connection with phthisis, and said that some observers consider the former the consequence of the latter, and others consider the affection as mere coincidences. He concluded a most interesting paper by giving it as his opinion and that of Mr. Marshall, that their patient's malady took its start from deposits and secondary inflammation, excited in the lung by the presence of septic or other matters carried from the diseased testicle.

In the discussion that ensued, Dr. BROADBENT remarked that many cases of so-called phthisis were not so, and he believed that in the case of fistula this disease, as a rule, preceded the lung disease.

The PRESIDENT agreed with the last speaker, and said that in a large experience he had observed that the fistula was antecedent to the lung disease.

Mr. HENRY LEE said he never was able to trace any connection between orchitis and lung disease.

The author replied, and the meeting adjourned.

Correspondence.

THE KING'S PROFESSORSHIP OF PRACTICE OF MEDICINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Allow me to call your attention to some unintentional inaccuracies in an article in your paper of the 27th instant, headed, "The King's Professorship of the Practice of Medicine in the University of Dublin ?"

The above professorship, at present held by Dr. Stokes, is *not* vacant ; that referred to in the article in question is probably "the King's Professorship of the Practice of Medicine *on the foundation of Sir Patrick Dun*," which is really one of the College of Physicians professorships, because the election and control of the professor lies solely with the Fellows of the College of Physicians, out of whose trust-estate he is also, paid, and by whom his duties are regulated. The University has nothing to do with him, further than giving him a lecture-room ; and even this connection may be severed at the will of the college aforesaid. Nor is the "consent" of the Board of Trinity College, Dublin, necessary, or even allowable, in an election of this kind. The Board have nothing to say to the matter ; and it surely must have been a *lapsus calami* of the writer to say that "the special function [of the University] is the conferring of *medical* degrees."

Further, there are *fifty-three* electors, and not *thirty-three ;* and of these fifty-three, forty-four are resident in or near Dublin. There are also more candidates, I believe, than those given in your article, and possibly there may be more still, before the day of election. As to the candidates named by your correspondent, I wish to say no more than this, that in the "Medical Directory" of the present year will be found a tolerably accurate account of their respective merits. The Directory does not, however, give an entirely accurate or complete account of the present official positions, and published works, of any one of them.

There seems to be a hopeless confusion of ideas about the professional connection between the Dublin University and the College of Physicians, notwithstanding various articles on this very subject in your journal during the year 1867. Not only is the professorship, to which your correspondent referred, not of, in, or belonging to, the University (any more than Dr. Benson's Professorship in the College of Surgeons), but it is actually not even *the* Professorship of Medicine on Dun's foundation ! By the Acts of 1800, and 1867, there are *three* Professors of *Clinical* Medicine in the School of Physic. All in turn teach clinical medicine, while to one is confided the special teaching of the "Institutes," or theory; to a second that of the *practice ;* and to the third, that of the means or instruments whereby the theory is to be carried into practice—Materia Medica, &c. Irrespective of this view, however, there are at least *two* Professorships of Medicine on Dun's foundation : one now held by Dr. Law ; the other lately held by Dr. Banks.—Yours truly,

A MEMBER OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

28th May, 1868.

[We were well aware of the distinction between the Professorships held by Dr. Stokes and Dr. Banks, and adopted the title to which our correspondent properly takes exception, with the view of simplifying to the understanding of those who know nothing of Sir Patrick Dun's foundation, the somewhat incomprehensible distinction. If we had been writing of Dr. Stokes we should have used the usual title of "Regius" Professor. We were aware that the selection of a Professor lies solely with the Fellows of the College of Physicians, but, we presume, that as the future efficiency and success of their school will turn on the selection of an efficient Professor, the governing body of Trinity may be supposed to exercise a powerful indirect influence in the matter. We cannot, however, believe that the many influential physicians, who are electors in this case, will vote at the dictation or influence of any extraneous body, or of any individual, however powerful. To put in a novice would certainly bear this interpretation ; while it would stultify their own professional claims in the eyes of the public.—ED. M. P. & C.]

CHYMISTS AND DRUGGISTS.—Lord Granville has laid before the House of Lords a Bill proposing to enact that after the 31st of December, 1868, no persons shall keep open shop for retailing, dispensing, or compounding poisons, or use the title "chymist" or "druggist," unless he is a pharmaceutical chymist, or was before that date in business as a chymist and druggist keeping open shop for compounding prescriptions, or has for two years before the passing of this Act been apprenticed to a chymist and druggist, or at the time of passing this Act being of full age has been actually engaged in compounding prescriptions as an assistant. An annual register of qualified persons is to be issued. Poisons are to be distinctly labelled. The Bill is not to extend to wholesale houses, or to sales for use in photography, or to patent medicine vendors, or to qualified medical practitioners or veterinary surgeons. Chymists and druggists are not to be liable to serve on juries. The following are to be declared poisons :—Arsenic and its preparations, oxalic acid, prussic acid, chloroform, cyanides of potassium and mercury, strychnine and all poisonous vegetable alkaloids and their salts, aconite and its preparations, emetic tartar, corrosive sublimate, belladonna and its preparations, essential oil of almonds, unless deprived of its prussic acid, cantharides, and savin and its soil.

THE VACANT CHAIR OF MEDICINE IN DUBLIN.

The election of a successor to Professor Banks, to which we called attention last week, is anxiously looked forward to, and the relative claims of the candidates are ardently discussed. To the names of Dr. Henry Kennedy, Dr. William Moore, and Dr. Foot, we have now to add that of Dr. Freke, whose candidature we had previously announced, and to whom we owe an apology for the omission, on inaccurate information, of his name, in the enumeration of the candidates.

Dr. Kennedy is Physician to Sir Patrick Dun's Hospital and to Cork-street Fever Hospital. Dr. Moore is Physician to Sir Patrick Dun's Hospital, to Mercer's Hospital, and to the Children's Hospital, and Lecturer on Practice of Medicine in the Ledwich School. Dr. Freke is Physician and Lecturer on Practice of Medicine to Steevens' Hospital, and late Physician to the Kilmainham Hospital. Dr. Foot is not, nor, so far as we are aware, has he been connected with any Hospital or Dispensary, nor is he a Lecturer, except in his capacity as Demonstrator in Anatomy.

As regards professional standing, Dr. Kennedy has been for nineteen years a Fellow of the College, and has been a Bachelor of Medicine for twenty-nine years. Dr. Moore is a Bachelor of Medicine of eighteen, and a Doctor of eight years' standing—a Fellow of the College since 1859, he has filled the office of Vice-President, and is at present an Examiner in the College of Physicians. Dr. Freke has been qualified as a Bachelor of Medicine for twenty-three years, an M.D. for thirteen, and a Fellow of the College for eleven; he also has been a Censor and Examiner. Dr. Foot has been a Bachelor of Medicine for six, a Doctor for three, and a Fellow for two years, and has held no office in the College connected with *the practice of medicine.*

The foregoing facts leave no room for further argument as to the relative fitness of the senior and junior candidates, and if the intention to set aside either Dr. Kennedy, Dr. Moore, or Dr. Freke for the advancement of Dr. Foot be carried out, the plea of that gentleman's superior eligibility can hardly be raised. The three senior candidates are physicians of standing and experience, and are known to the profession as competent teachers; and their personal claims, as Fellows of the College of Physicians, are many years in advance of those of their junior competitor. Their exclusion, therefore, to make way for the advancement of a gentleman claiming, in no respect, as far as we know, a greater title to the consideration of the College, would be not only an absolute slight to them and to their professional position, but would leave upon the public mind the impression, that in the contest for the honours at the disposal of the College, industry, experience, and capability, are weaker weapons than the judicious and timely "cultivation" of the powers that be.

At the Levee, on Saturday, held on behalf of her Majesty by H.R.H. the Prince of Wales, the following members of the Profession had the honour of presentation:—Dr. G. Butler, Dr. J. Campbell, R.N.; Mr. R. W. Davies, Dr. A. Garden, Dr. Francis Hawkins, Dr. Africanus Horton, Dr. Leonard, Dr. Meryon, Mr. D. Michael, Dr. Peake, Dr. Arthur Priest, Mr. Randall, Mr. A. M. Rogers, Dr. Seward, Dr. Stovell, &c.

The West Middlesex Coronership.—This case—Farnell *v.* Diplock—in the Court of Queen's Bench, will, by arrangement, be taken to-morrow (Thursday).

ELECTION OF THE COUNCIL AND OFFICERS OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

The first Monday in June is constituted by Charter the day for the election of the executive of the College for the ensuing year, and that day is adopted by common consent for the annual visit of the provincial Fellows to Dublin, and for the annual meetings of the Irish Medical Association and Royal Medical Benevolent Fund Society. The President, Mr. Adams, offered himself for election into the Council, and was replaced in the presidental chair by Mr. Porter, who, in his promotion from the Vice-Presidency, was succeeded by Mr. Macnamara. In addition to the out-going Council who offered themselves for re-election, the honour of a seat was sought for by Mr. John Hamilton, Surgeon to the Richmond Hospital, Mr. Stapleton, Surgeon to the Mater Misericordiæ Hospital, Dr. Kirkpatrick, Surgeon of the North Dublin Union, and Mr. Tyrrell, Surgeon to the Mater Misericordiæ Hospital. The following gentlemen were, on scrutiny of the ballot, declared duly elected:—

President—G. H. Porter.
Vice-President—Rawdon Macnamara.
Secretary—W. Colles.
Council—

William Hargrave.	Edward Ledwich.
James Barker.	William Jameson.
William Colles.	Alexander Carte.
Robert Adams.	James H. Wharton.
Hans Irvine.	George W. Hatchell.
Samuel G. Wilmot.	Albert J. Walsh.
Richard G. H. Butcher.	Edward D. Mapother.
Thomas L. Mackesy.	William A. Elliott.
Hamilton Labatt.	Archibald H. Jacob.
Benjamin M'Dowel.	

THE MEDICAL MEETINGS IN DUBLIN.

The meetings of the Irish Medical Association and the Royal Medical Benevolent Fund Society, on Monday last, were eminently successful and encouraging to the supporters of each of these valuable societies. Each was attended by a large and influential section of the provincial and metropolitan members of the profession, and the Council of each had to report a considerable accession to the members. The prosperity of these Societies is a certain indication of activity and prosperity in the profession, and we trust to be able to record a steady advance in at least the same proportion in future years as we are enabled to do to-day.

ON EXSECTION OF THE HEAD OF THE FEMUR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—May I take the liberty of directing the attention of the Profession to the above operation.

In the *Medical Mirror* for May, under the heading "Surgical Opinion," there is extracted from the *Pacific Medical and Surgical Journal* for March, 1868, published in San Francisco, three cases by Dr. David Wooster.

First.—Exsection of the head of thigh bone; removal of portions of cotyloid walls; recovery in one year, with a useful limb and joint.

Second.—Hip-joint disease in first stage; section of adductors; straightening under chloroform; cure.

Third.—Fracture of neck of femur.

Dr. Wooster considers that discolation seldom or never takes place in hip-joint disease, and after he cut down on the joint found it impossible to discolate the head of the femur till he had divided the tendons inserted into the great trochanter.—I am, &c., L.R.C.S.I.

The Secretary of the British Medical Association requests us to state that "the report of the sub-committee appointed to consider the representation of the Profession in the Medical Council," inserted in our last number, emanated from a sub-committee of the above association; and that a deputation has been appointed to wait upon the General Medical Council during their next session.

Medical News.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following gentlemen obtained the Licenses in Medicine during the months of January, February, March, and April last:—

William Ahern, Liskeard, Cheshire; Oliver Stokes Eagar, Tralee; Thomas Greenhalgh, Manchester; Samuel Morton Hewitt, 25, York-street; Robert Todd Huston, Carlow; Charles Edward Jones, 53, Eccles-street; Albert Kirwan, 44, Mountjoy-square; Maurice Knox, Ballybrack; Francis Edgeworth Lynch, Drumcondra; Wm. McMullen, 3, Edward-terrace; Charles Benjamin Mosse, Staff-Surgeon; Frederick Robert Paterson, 14, Lansdown-road; Gregory Sale, Coolcor; William Henry Stock, Clonroche; Charles Joseph Walsh, Castlebar.

The following obtained the License to practice Medicine:—

William Akerman, London; Arthur Thomas Birney, 26, Middle Gardiner-street; John Annesley Brownrigg, Kingstown; Charles Alex. Cameron, 102, Lower Baggot-street; Wm. Henry Harding, Eastbourne; Edward Husband, Middlesboro'; Charles Boromeo Jennings, Ennis; Andrew McMunn, Ballymote; Francis Richard O'Grady, Ballyhannis.

The following obtained the License in Midwifery:—

Thomas Charles Gilmore, Ballybay; James Leathem, London; Daniel Thornton, Kinnetty.

LIST of Entries in the Branch Medical Council (Ireland), for the month of May, 1868:—

William Cooke, Garey, co. Wexford, Lic. Apoth. Hall Dubl., 1868; William Henry Stock, 56, Camden-street, Dublin, Lic., 1868, and Lic. Midwifery, 1868, K. Q. Col. Phys. Irel., Lic. Fac. Phys. and Surg. Glasg., 1867; Francis John O'Reilly, Rathmore House, Athboy, co. Meath, Lic. R. Col. Phys. Edin., 1868, Lic. R. Col. Surg. Edin., 1868; George Corry, 3, Osborne-terrace, Kingstown, co. Dublin, Lic. R. Col. Phys. Edin., 1868, Lic. R. Col. Surg. Edin., 1868; Gregory Sale, Coolcor, Carberry, co. Kildare, Lic. R. Col. Surg. Irel., 1868, Lic., 1868, and Lic. Midwifery, 1868, K. Q. C. Phys. Irel.; John Byrne Hackett, Johnstown, co. Kilkenny, Lic. R. Col. Phys. Edin., 1868, Lic. R. Col. Surg., Edin., 1868; William M'Mullen, 3, Edward-terrace, Dublin, Lic. R. Col. Surg. Irel., 1867, Lic., 1868, and Lic. Midwifery, 1867, K. Q. C. Phys. Irel.

LORD BROUGHAM'S FUNERAL.—An Edinburgh gentleman, travelling in the South of France, in a letter dated "Cannes, May 24," writes—"This afternoon, at five o'clock, the remains of Henry, Lord Brougham, were conveyed in a plain deal coffin, covered with black cloth and nailed down with plain black nails, without any ornament or superscription, carried in a musty old hearse dragged by two sorry horses, to the public cemetery at Cannes, and pushed into a vault so clumsily that part of the black cloth was torn off the coffin. A clergyman read the customary prayers at the mouth of the vault, and then laid on the coffin two of those common wreaths of immortelles; then a Frenchman stepped forward and read an empty eulogium, the gist of which was that Lord Brougham had been the means of bringing the English to Cannes. A motley collection of odd-looking vehicles followed the hearse, containing Lord Brougham's relatives and friends. There were also some Frenchmen, and the remnant of the English whose avocations do not allow them to leave the place with the fashionable world. When we arrived at the cemetery, we found a crowd of peasantry—men, women, and children. I followed the hearse the whole way; it was a hot and a long walk."—*Scotsman.*

ROYAL MEDICAL BENEVOLENT COLLEGE.—The annual general meeting was held on Friday week at the offices of the college, Soho-square, under the presidency of Sir Chas. Locock, Bart. The Secretary, Mr. Freeman, read the report, which regretted the loss of their first treasurer, the late Mr. John Propert, as well as three old friends of the college—viz., Sir Thos. Phillips, Q.C., Mr. Joseph Ward, and Dr. Edward Ray. One hundred guineas had been set aside from the general funds of the college for a marble bust of the late Mr. J. Propert, which was to be placed in the college at Epsom. The commission for the bust had been given to Mr. E. W. Wyon, who had been well acquainted with Mr. Propert, and had modelled a bust of him in his lifetime, which was considered an admirable likeness. Mr. Wyon was now at work at it, and expected to have it finished early in the summer. There would be no election of pensioners this year, as no vacancies had occurred, but the usual annual election of foundation scholars would take place at the Freemasons' Tavern during the present week, when ten boys would be elected. The number of applicants was large, their being no fewer than 51 for the ten vacant places. The report then complained that boys were sent to the college utterly unprepared for the course of studies appointed for the students. The council had therefore made arrangements for these lads to be prepared at a school at Epsom, under the tuition of Mr. Davy, a late master of the college. The council considered that the friends of the college had every reason to be thankful for the success which had hitherto attended it, and to look forward with courage and confidence to the future. The balance-sheet showed that the receipts from all sources during the year had been £12,034, 11s. 11d.; and after all the expenses had been paid there remained a balance of £921, 16s. 7d. Dr. Carr moved, and Mr. Dale seconded, the adoption of the report, which was carried unanimously. The members of the council who retired were re-elected, and a vote of thanks to the chairman and the officers closed the proceedings.

PRISON DIET.—An inquiry was lately held by Dr. Lankester, coroner, at the House of Correction, upon the body of Joseph Powers, a blacksmith, aged 45, an inmate of the prison, who died on the 20th inst. Maria Powers, of North-buildings, Hoxton, said the deceased was her husband. On the 20th of May, 1867, he was committed for embezzlement, and ordered to suffer 12 months' confinement. She saw him every three months, and he complained very much of the treatment, and said the food was not sufficient to keep him alive. He had been glad to purloin pieces of tallow candles and eat them, or he should have died of hunger. He said other prisoners had done the same, and when found out had been punished for it. He many times had said bitterly, "Oh, you little know what we have to suffer." The deceased was a corpulent, heavy man, and a great eater. She thought the want of sufficient food had been his death. He died on the 20th inst., after having been in the infirmary for six weeks. He was kindly tended while there, and died the day after he should have left the prison. A juror said he knew a man still in the prison who had lost 18 lbs. in weight of flesh during three months. The Coroner said there was a deficiency of fatty substance in the food supplied, and that might have made the deceased, who was a stout man, take the fat. Joseph Leeds, warder and nurse, deposed to the deceased being admitted to the infirmary on the 8th of April through spitting of blood, and that he received every attention. He had eggs, wine, and fish, but he gradually sank and died on Wednesday last. Mr. Smiles, the prison surgeon, said the deceased worked at the treadwheel for only a short time after his admission, when he complained to witness and he was excused. He was excused the wheel because he was a large, heavy man, and besides which he obtained two good conduct stars. He complained of the food, and witness ordered him an extra allowance. He had never heard of prisoners eating tallow, and gas was almost universally used in the prison. The witness had heard of prisoners eating soap but that was for other reasons. He had been told he was a great eater. The deceased had certainly lost flesh, and that was why he had ordered him an extra allowance. The coroner remarked that the subject of diet given to prisoners was one which the public are at present most anxious about. It was not right that prisoners should be punished by short allowances. Mr. Smiles said they had recently begun to weigh the prisoners once a month instead of once in three months. The only thing that deceased complained of was the want of food. In many prisons they gave no meat at all to prisoners, and he believed the authorities were reconsidering the question of diet. A verdict of "death from natural causes" was recorded.

NOTICES TO CORRESPONDENTS.

Mr. W. B. STOTT, Disley.—The result of the election for the Foundation Scholarships at the Royal Medical Benevolent College will be found in our advertising columns.

ONE INTERESTED.—See previous reply.

E. S., Manchester.—The publication of "Dr. Letheby's Lectures on Food" has now finished. They have appeared exclusively in this Journal, and we believe it is not the intention of the author to reprint them in pamphlet form, as you suggest. The whole of the numbers containing them—fifteen in all—can be had through any bookseller, or direct from our office.

MONOMANIA will oblige by forwarding his name and address, as a voucher that the extraordinary *facts* he would have us lay before our readers are correct. Our correspondent must not imagine that by adhering to this oft-repeated rule, we wish to cast doubts on his statement.

Proofs reaching authors in England on or before Friday morning are expected to be returned to the Editor, at the office, 20, King William-street, Strand, W.C., before five P.M., on Friday afternoon. Proofs reaching authors on Friday evening or Saturday morning *must* be returned to the office by two P.M. on Saturday, which is an early closing day. Duplicate proofs are sent to authors, in order that they may correct and return one copy, and keep the other for private use. Contributions should be LEGIBLY written, on one side of the paper *only*.

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 10, 1868.

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HISTORICAL SKETCH OF THE DISMEMBERMENT OF PHARMACY FROM PHYSIC.

By M. DONOVAN, M.R.I.A.,

HON. MEMBER OF THE PHILADELPHIA COLLEGE OF PHARMACY.

[SECOND COMMUNICATION.]

In the British isles, and in some other parts of Europe, pharmacy had been long in a singular state of confusion and dangerous disorganization. Medicines were sold by barbers, grocers, and apothecaries. Between the trades of the two latter there was little difference; both sold nearly the same commodities. The apothecary could supply liqueurs, chocolate, tea, coffee, the ingredients of an electuary or a pudding, or of a posset of spiced wine; and the grocer sold sugar, fruits, drugs, and what were called the "public medicines." The physician in his prescription referred to these last in a very brief manner, on the supposition that use had made them familiar (Observations on the case of Rose); and it had been the custom to sell them at a certain known price. The composition of these was dictated by the physicians, and the apothecaries were required to compound them with the greatest exactness. Their uses and prices were communicated by the physicians to all families, and the nobility and gentry had their receipt-books, in which their management was described. Some persons made collections of receipts for their private use. There is still in existence an old black-letter book of this kind, which was published in 1639, from a manuscript that had belonged to a lady then lately deceased. The editor informs us that this manuscript was originally written for the lady's own private use, and that he found in it such "pretty conceits" that he felt it his duty to publish them. The book is entitled the "Widowe's Treasure." One of the pretty conceits is a receipt for phymosis, another for gonorrhœa, another to act as a diuretic; all expressed in plain English, that cannot be quoted.

These public medicines were bought in large quantities, and kept in every house as a domestic store; and when occasion required were mixed and divided at home into juleps, boluses, and powders, under the instructions of the physician. The public medicines, as bought from the apothecaries, were for the most part sufficiently compounded for use; but when the peculiarity of the disease required a variation of the formula, the physician himself prescribed, prepared, and supplied the article. These nostrums were called "reserved medicines" or specifics, and were kept secret from the apothecary. The physicians kept the articles necessary for these purposes in their houses, and even imported the capital medicines. Sometimes, on emergencies, separate articles were sent for from the apothecary and compounded in the house of the patient by the instructions of the physician. The physicians also, as now, received patients at their houses, and wrote extemporaneous prescriptions, to be sent to the apothecary. In these days it was nothing unusual for physicians to have salaries from families.

In England, up to the commencement of the reign of Henry VIII. (1509), any person, no matter how ignorant, might practice physic, surgery, or pharmacy; but the evils arising from such a state of things had increased to such an extent that the interposition of power was no longer a matter of choice. In the third year of the reign of that monarch an Act of Parliament was passed, from which we learn that "smiths, weavers, cobblers, draymen, and women boldly take on them great cures, and things of great difficulty, in the which they partly use sorcery and witchcraft, and partly apply nervous and unfit medicines, to the high displeasure of God, great infamy to the faculty, and grievous hurt of many of the King's liege people; most especially those that cannot discern the cunning from the uncunning." It was therefore enacted that no person in London, or within seven miles, should practise as physician or surgeon, unless first examined, approved, and admitted by the Bishop of London or Dean of St. Paul's, calling to him four doctors of physic, and for surgery other expert persons in that faculty, under penalty of one hundred shillings for every month's practice proved.

In the 10th of the same king's reign a perpetual College of Physicians was erected in London by Royal patent, in imitation of well-governed cities in Italy and other countries. This patent was nominally confirmed by Act of Parliament in the 14-15th of same reign; but by some unaccountable neglect the parliamentary roll was never signed with the royal assent, and hence became a dead letter.

In 32 Henry VIII. (1540), an act passed giving power to physicians to search all apothecaries' shops for bad medicines, and confirming to them the ancient privilege of prac-

tising physic in *all* its parts. By the law of England, therefore, the physicians were created general practitioners of medicine, such as we now find them.

In the first year of Queen Mary (1553), the privileges of the College were confirmed and extended. They were armed with the unjust and arbitrary power of fining and imprisoning their own members for *mala praxis*, or such as they chose to designate as such, and this without bail—a power which no king of England ever possessed. It was also enacted that the Censors of the College shall have power to examine the medicines in apothecaries' shops, and to destroy all unsound articles.

But the apothecaries, not relishing this interference of the physicians, whose education, however good in other respects, did not qualify them for this particular duty, in some instances resisted the Censors: insomuch that in 1553 (1st Mary) power was given to the president and censors to inflict fines and imprisonment on such persons as resisted them in their search of "pottecary wares." In a few years after this (4th Mary) all apothecaries were enjoined to expose the several ingredients of which a medicine was composed to open view for six or eight days, that the physicians passing by might judge of their goodness. Could anything surpass the absurdity of this law? This is the origin of the practice still prevalent amongst apothecaries and chemists of having their windows crowded with medicines of all kinds. But the charter of James I. (1618) transferred power of inspection from the physicians to the corporation of apothecaries, who might burn all bad medicines found. This stupid piece of legislation was borrowed from the edict of Frederick II., in the beginning of the 13th century, by which, in the southern parts of Italy, the apothecaries' *stationes* or shops were made liable to examination by physicians. This edict will be hereafter noticed.

Notwithstanding the efforts of the College of Physicians to protect themselves and the public from dangerous encroachments, London was overrun with pretenders and impostors, and were countenanced by persons of exalted station. The public at all times, down to the present, have evinced an unaccountable predilection for cures by old women. History records that the Duke of Buckingham, having dismissed the physicians who attended King Edward VI., put him under the care of an old woman. He died shortly after (1554). Pasquier tells us that the cavalliers, when wounded, had recourse to the nearest mansion to be cured by the women. The newly-chartered College of Physicians determined to exercise their powers vigorously, and to make examples of such as were found offending; but eventually it proved no easy matter, in consequence of opposition from unexpected quarters.

They warned their officers that "many lewd, indiscreete, and unlearned persons are wandering about with changeable names and false medicines." The College having restrained an old woman from practising as physician and surgeon, Sir Francis Walsingham, Secretary of State (Elizabeth) wrote a letter to the College, stating that by the application of certain simples, in the use of which "God had given her an especial knowledge, to the benefit of the poorer sort, I shall therefore desire you forthwith to take order amongst yourselves for readmitting of her into the quiet exercise of her small talent, lest you procure inconvenience thereby to yourselves." But the College expressed a respectful resolution to persevere. A quack, named John Not, being bound over not to practice physic, Secretary Walsingham interfered, as Not had been employed by himself and many gentlemen, and had received benefit from him. The College, however, persevered. The secretary having again interfered in the case of an illegal practitioner, on being expostulated with, hypocritically declared that if at any time, by the importunity of friends, he interposed, the College should act as they deemed prudent. In other cases the Queen herself interfered, but, much to the credit of the College, in vain. The attorney-general also ineffectually exerted himself in favour of a clergyman who had bargained with m[illegible]s, and took money in hand, but did no good. In one case he gave an emetic which produced 100 stools, and the patient died "wallowing in his sanguineous evacuations."

A surgeon, named Read, examined by the College of Physicians, being asked what was a diarrhœa, said it was a flux of blood from the womb, proceeding from gross humours in the stomach. He was fined and imprisoned. On this occasion, Chief Justice Sir John Popham, declared that he thought it most advisable that all physicians, for the future, should write upon their prescriptions the patient's name, and the day of the month and year—an excellent advice a long time acted on, but now, unfortunately, little attended to.

Long before this time the punishment of a quack was ridicule, he was set on horseback, his face to the tail, which he held as a bridle, a collar of jordans about his neck, a whetstone on his breast, and amidst ringing of basins, he was led through the city of London.

The regular apothecaries always defended their infraction of the law, by declaring that if they did not practise the consequences to the poor would be ruinous, inasmuch as they said "the physicians were not very ready to attend any patient that had not his guinea or his half-guinea in his hand." In order to prove their great utility to the public, they declared that while *they* stood their ground, during the plague of 1665, which carried off 68,000 citizens, the physicians deserted their post and fled the city ("Reason in Season," Hargrave, 1676). This charge seems to be in part true, for we find that in August, 1665, when the plague raged in London, a kind of proclamation was issued by two physicians chosen by the College, along with six others, for the prevention and cure of that pestilence, in which they direct all apothecaries to repair to them, "or any other of our profession *in town*, being not so *void* of physicians as generally reported," for advice, "as in former cases *they were wont*." Did the doctors decamp during former plagues also?

With regard to the charge made by apothecaries of the exorbitant fees demanded by physicians from patients of even small means, the physicians retorted the extravagant prices charged by apothecaries for medicines supplied to the poor; and, in 1691, they appointed a committee to communicate with the Lord Mayor and Court of Aldermen, to convince them of the necessity of putting an end to the oppression of the poor by the apothecaries. A committee was appointed; and the physicians undertook to prove to them that all the medicines in the pharmacopœia were very cheap: on which the sages of the city resolved that the physicians should affix a price to the medicines contained in their prescriptions, by a rate settled between the committee and the physicians.

Some months after this, the apothecaries had a meeting at their Hall: they resolved that every trader is best able to determine the value of his commodities, and they, therefore, indignantly rejected the assumed right of setting a price upon their services. At last, forty of the more tractable apothecaries obsequiously obliged themselves by their signature at the College, to deliver all medicines at the rates affixed by the prescriber; but they were called before the Hall, and threatened with chargeable offices, and expulsion if they did not retract. On this, the committee of the Aldermen and Commons requested the College to provide a repository for medicines where a reduction of prices could be carried into effect; but the proposal was not immediately acted upon.

The physicians had, long before this time, obtained an exemption from serving in the offices of constables, scavengers, and some other parish offices; their legitimate services to the public had been acknowledged from the time of the Trojan war to the days of the apostate Julian, who flattered them by a declaration that "their art came down from heaven," (see his letter in La Bletterie Histoire).

About the beginning of the seventeenth century, there was a physician practising in London, for a while chief-physician to Queen Elizabeth, and afterwards to James I., who was the originator of a complete revolution in the

practice of medicine in the British isles: this was Sir Theodore Turquet de Mayerne, a Swiss—a man of learning, influence, and wealth—of whom the following account has been given:—He obtained his degree of M.D. in 1597: went to Paris, and applied himself very much to chemistry, a science then very odious to the physicians of that city, who railed vehemently against him, representing him as a sworn enemy to physic. The faculty prohibited him by a decree from practising; yet Henry the Great made him his physician. After the assassination of this prince, Mayerne retired to England, made a great fortune, and was first physician to James I., as well as his friend and favourite. Loaded with honours, his fortune still increased under Charles I., and he was unanimously admitted doctor of physic in both universities of the kingdom. His reputation and practice were extraordinary (Bayle. Hist. Dict.). Disapproving of the English practice of prescribing the stock medicines and mixing them at the house of the patient, Mayerne, who had now received the honour of knighthood, used operose formulæ, which he called magistrale preparations, and which puzzled the apothecaries and grocers exceedingly.

Every medicine was disguised from the patient contrarily to the English practice, and amidst a multiplicity of trivial articles there was generally some active preparation. The court physician, of course, had his imitators, and the practice of a more complex extemporaneous pharmacy, by written prescription, began to gain ground; from whence, in a modified state, it has descended to us. The blunders and fatal mistakes made by grocers and some apothecaries, suggested the idea to Mayerne, of separating the apothecaries from the grocers, in order that the former, no longer distracted with the details of a business foreign to medicine, might apply themselves with better effect to the diversified processes of pharmacy. The College, no doubt, wishing to relinquish some of the more troublesome parts of the profession, coincided in this view; and a petition was addressed to his majesty by Sir Theodore Mayerne, and the king's other physician, Dr. Henry Atkins, praying his majesty to incorporate the apothecaries separately, and representing that, many persons sold medicines who were ignorant of their nature and qualities. His majesty, complying with the prayer of the petition, disunited the two corporations after an union of eleven years, and granted a separate charter (1617) to 114 apothecaries, who had been selected by the College of Physicians, as the best instructed of the grocer-apothecaries.

It was also granted that no one shall sell compound medicines in London, unless he shall have served seven years to an apothecary, and shall have been examined and approved by the master and wardens of the company. But as no penalty was attached to this clause, it was soon after totally neglected, and every one that chose opened an apothecary's shop in the city, without hindrance.

The College of Physicians having now the use of a sufficient number of legally qualified *servants*, for such they designated apothecaries, were not slow in calling their skill into action. In the next year (1618), they published their first pharmacopœia, which, soon after, was followed by a royal proclamation enforcing the observance of it in the composition of medicines (Rymer's Fœdera, 1618 and 1620). This pharmacopœia was compiled from Mesue, Galen, Rhases, Nicolaus, Actuarius, Avicenna, Valerius Cordus, Arnoldus, Gesner, &c. The oppression inflicted on the apothecaries by it was truly tyrannical, and made them pay dearly for the favour conferred on them by incorporation; for in its catalogue there are no less than 1254 articles, for which the apothecary was liable to be called on.

Whatever the motives of the College of Physicians might have been in procuring the separate incorporation of the apothecaries, it was decidedly one of the most impolitic measures for their own interests that they could have conceived. They were not slow in discovering their indiscretion, and were the more incensed at the consequences by discovering that the cause was attributable to themselves. The demeanour of haughty superiority assumed by the physicians towards apothecaries, tended, in process of time, to destroy the foundation of their own pride. The physician visited his patient attended by the apothecary, at first in a servile capacity, to receive his full instructions as to the medicines prescribed; the apothecary was ordered to attend their operations: and the time is not very remote when one of his duties was to hold the basin and the patient's head, while an emetic was producing its effects. The apothecaries not only submitted to this degradation, but actually boasted to the House of Lords of their utility in this respect, and made it their strongest argument to obtain a renewal of their act of exemption from parish and ward offices. They consented to follow in the footsteps of the physician, no doubt foreseeing that they would soon tread on his heels. They represented to the public, that being the compounders of physicians' prescriptions, they knew the composition; and, as they saw the patient with the physician, they had the opportunity of learning the symptoms for which that medicine was exhibited, as well as of witnessing its effects: that therefore it was matter of little importance whether the doctor or the apothecary was called in to attend the sick. The unwise policy of the physicians in expecting heavy fees, determined the balance of choice in favour of the apothecary: and the result was that the physicians soon had sufficient leisure to meditate on their want of timely prudence, and to devise a measure of retalliation. At first, they tried to write down the apothecaries; the press teemed with pamphlets, philippicks, squibs, puffs, poems, songs, and even plays. But this warfare, to the full as unwise as their former policy towards the apothecaries, only gave the latter an opportunity of showing the public, in print, how useful they were, how much they endured for being so, and how truly the virulence of the physicians might be considered as the measure of the services of the apothecaries to the public. Finding all these efforts useless, and perceiving that the apothecaries were beginning to educate themselves, and were gaining public confidence, the physicians began to think that it was high time to attempt to undo what they had done.

Accordingly, in 1639, about twenty-two years after the incorporation of the apothecaries, the College of Physicians represented to King Charles I., that the apothecaries were increasing prodigiously by the practice of each taking two or three apprentices to do the home business while their masters were out prescribing; that they had invaded the province of the physicians, and endangered the lives of the public. The King received this impeachment in council; proofs were tendered; the charges were declared to be proved; the judges were consulted, and they unanimously agreed to the necessity of reducing the number of the apothecaries. They were of opinion that the apothecaries "by making an ill use of their charter had virtually repealed it and destroyed all the acts of Parliament which had been made to secure life and health." The Attorney-General was, therefore, commanded by *quo warranto* to dissolve their charter; and after a year, occupied in vain with defensive pleadings on the part of the apothecaries before the council, the Lord President was directed to command the prosecution without delay. His Majesty then pronounced the dissolution by the following declaration: "That the excessive number of apothecaries is inconsistent with the safety of our royal person and family, and of all our subjects. The physicians of the College have demonstrated that the public may have the medicines sufficiently compounded for [the general diseases from not many of you placed at the proper distances in the city. When you shall fill all the streets you must starve, if the poor are not undone by you, and the wealthy pestered and killed by the numbers of the doses in almost all diseases. You will desert your labours in preparing the remedies; and, against the excellent provision of the laws, undertake the cures of diseases with the knavish artifices and impostures of your own prices for all your fraudulent

divisions. A great part of the physicians shall be compelled to sacrifice their patients to your necessity, and by the perfidious justification of your quackeries on the most severe diseases, betray their profession to you; and at last, by practising only on the diseases disordered and confused by you, shall never make the just observations of the natures and progress, and of the effects of their medicines. The College shall be broken by the most raging feuds and animosities, and the promotion of the knowledge of all the parts of the learned profession shall cease. Your company is, therefore, dissolved; the College is ordered to represent to this board how many of you may be tolerated, not to increase but with the enlargement of the city."

(To be continued.)

SHORT NOTES ON NICE.

By JAMES STANNUS HUGHES, M.D., F.R.C.S.I.,

PROFESSOR OF SURGERY IN THE ROYAL COLLEGE OF SURGEONS, IRELAND; SURGEON TO JERVIS-STREET HOSPITAL; CONSULTING SURGEON TO THE COOMBE LYING-IN HOSPITAL; SURGEON TO THE LORD LIEUTENANT'S HOUSEHOLD, &c.

(Continued from page 467.)

THE following is the interesting description which was published of the old town of Nice by Tobias Smollett M.D., in 1765, introductory to a register of the weather[1] kept by him at Nice from November 1763 to March 1765 :—

"The town of Nice is situated in the bay of Antibes, latitude forty-three degrees, forty minutes north ; east longitude from London, seven degrees, twenty-five minutes, equidistant from Marseilles, Genoa, and Turin, that is about ninety English miles. The north wind blows over the maritime Alps, at the feet of which the town is situated ; the south from Cape Bona, on the coast of Barbary, sweeping the islands of Sardinia and Corsica in its passage ; the east from the Riviera of Genoa ; and the west from Provence.

"The town of Nice is wedged between a steep rock to the eastward, and the river Paglion, which washes the wall upon the west, and falls into the Mediterranean, within thirty yards of the corner bastion.

"This river is but a scanty stream, fed chiefly by the melting of the snow upon the mountains. It is sometimes swelled to a great depth, by sudden torrents ; but in the summer it is usually dry.

"The town of Nice is built of stone, and the streets are narrow. It is said to contain 12,000 inhabitants, in which case they must be much crowded, for the place is but small. There is a bridge of three arches over the Paglion, which is the entrance from the side of Provence. Nice is surrounded on this side by a wall and rampart of no strength ; on the other side it is commanded by a high rock, on which appear the ruins of an old castle, which was once deemed impregnable. It was taken, and dismantled by Mareschal Catinat, in the reign of Victor Amadeus, father to the present king of Sardinia. To the eastward of this rock is the harbour of Nice, in which there is not depth of water sufficient for ships of any burden. The hills begin to rise about a short mile from the north gate of the town. The Var falls into the sea about four miles to the westward ; and is fordable at the village of St. Laurent, which stands on the French side, near the mouth of the river. The space between the Var and Nice, is a succession of agreeable eminences, adorned with a great number of white houses, or cassines, surrounded by plantations of olives, vines, oranges, lemons, and citrons. The air of Nice is pure and penetrating, yet mild, generally dry, and elastic ; and the sky is remarkably clear and serene. The well water is mostly hard, but not unwholesome ; and there are some springs both in the town and neighbourhood, which are surprisingly cold, limpid, and agreeable."

I have been favoured by three physicians of high reputation, at present practising at Nice, viz., Drs. Pantaleone, Travis, and Trousdell, with letters containing their experience of Nice as a residence for invalids, which they have kindly permitted me to publish, and which I now do, believing that they will prove valuable to the profession.

Dr. Pantaleone's observations on Nice admit of being considered, *in a condensed form*, under two heads :—

1*st*. With respect to the class of patients who are benefitted by a residence at Nice.

2*ndly*. With regard to the numerous forms of diseases which are disserved by the climate of Nice.

Respecting the first, Dr. Pantaleone says :—"Patients labouring under tuberculosis, or chronic scrofulous consolidation of the lungs in their upper portions, cannot find any better climate than that of Nice. I have known a few undoubted cases of the disease which had been diagnosed by some of the first physicians in Europe, cured by a residence at Nice, without leaving any trace of the previous ailment, detectible by either auscultation or percussion. In other cases the consolidation remained stationary without any bad consequences, no change taking place, as I have seen, for four or five years spent at Nice, or suitable parts of France, or England ; these are indeed the most striking cases of real and permanent cures, the results of a residence at Nice. But if there is fever, or sub-acute inflammation present in such cases, then Nice is one of the worst possible places for such patients; under which circumstances, I think Méntone[1] answers better than either Cannes, or Nice ; but in cases of tuberculosis of the lung, where there is great irritability present, Rome is, according to my experience, a more suitable climate than any place I am acquainted with, provided the patient is not suffering under atonic dyspepsia.

"Old chronic catarrhs cannot find a better climate in Europe than Nice, the same may be said of chronic asthma ; but according to the special characteristics of these diseases, sometimes your department No. 1, sometimes No. 2, and in other cases No. 3 (which you so faithfully described in the "Notes on Nice," which you were taking whilst here), will prove most beneficial.

Chronic diseases of the liver do well at Nice.

Albuminuria is benefitted by the warm dry atmosphere of Nice.

"Amenorrhœa, as a general rule, readily yields to proper treatment at Nice, partly, perhaps, on account of the improvement imparted by a residence here to the general health, and partly perhaps owing to the tendency in the climate to diminish various forms of abdominal congestion.

"I have met with two cases of Lucocythimia at Nice—one was benefitted by the climate, but I lost sight of it ultimately. The second case is *perfectly cured*, all the hæmorrhages have disappeared, the spleen has returned to its normal size, the blood, on microscopic examination, shows no difference from its normal condition, and the patient has become from 156 lbs. in weight to 192 lbs.; his natural colour has returned, and his general health and strength are in every way excellent. I publish this case as it is the only one of the disease which, according to my knowledge, has been cured. The climate of Nice helped me much in my successful treatment of the foregoing case.

"Gouty and rheumatic patients are benefitted by the climate of Nice. Generally speaking, in gout, no fixed attacks of the disease are experienced here; and what is important to record is, that the disease is checked without any of the bad results of suppressed gout.

"Having thus given you an outline of the diseases which are benefitted by Nice, I shall next mention those affections which are not served by our climate, and which, therefore, ought *not* to be sent here. I shall, at the same time, make a few observations on the diseases which are produced, or born, at Nice.

"All inflammatory complaints, but more especially those

1 "The Miscellaneous Works of Tobias Smollett, M.D., by Robert Anderson, M.D., vol. v.," 1800.

1 Having paid a flying visit to Mentone, I am bound to say that I formed a very favourable opinion of its genial climate and sheltered aspect, and I have no hesitation in saying that both the public and medical profession are greatly indebted to Dr. Bennett (who was very attentive to me during my short visit to Mentone, and pointed out to me its numerous advantages) for having directed their attention to that sunny spot. Dr. Bennett's able and interesting work on Mentone ought to be in the hands of every medical practitioner.—J. S. H.

of the brain, are increased by the stimulating effects of the climate of Nice. In fact, no inflammatory affections of the brain or spinal marrow, are served by a residence at Nice, and the same observation holds good respecting patients who are liable to attacks of excitement of the brain. Chronic paralytic cases are, on the contrary, for obvious reasons, benefitted by Nice; in fact, cases in which there is debility without inflammation. I cannot better explain my views with respect to paralytic patients than to say that these cases of paralysis in which the stimulating springs of Wilbad or Gastein would be dangerous, ought *not* to come to Nice. Under contrary dispositions they will find Nice the best place of residence they can select.

"Cases of diarrhœa are frequently met here, and if not properly attended to, prove most obstinate, more especially if opium has been injudiciously had recourse to.

"Cases of bronchitis are frequently produced at Nice by the sudden changes of temperature from hot to cold, in those who imprudently expose themselves without taking proper precautions.

"Ordinary cases of fever are very rare at Nice, but cases of ague, when developed, are very obstinate.

"Exanthemata, when met with, are very mild, and they very seldom spread extensively from house to house, or grow prevalent, and this observation applies to every other form of contagious disease, and this is obviously due to the isolation of the houses, and prevalence of wind at Nice.

"Inflammatory affections are rare here, and seldom present themselves in very acute forms. In seven years' residence here, I have been obliged to use *general* depletion in only three cases of acute inflammation, whilst local depletion has, of course, been called for in many diseases.

"Scrofula is not rare amongst the natives of Nice, or Nizzards, but, generally speaking, it is a disease limited to children of the inferior classes in the old town, from the combined wants of good drainage,[1] fresh air, nourishing food, proper raiment, and cleanliness.

The following are Dr. Travis' observations on Nice, which I give in their entirety :—

Nice, 12th February, 1868.

My Dear Dr. Hughes,—At length I am at liberty to fulfil my promise of writing you a few lines on the subject of your inquiries when at Nice, although I have little to add to the remarks I made, in answer to your inquiries, when I had the pleasure of seeing you here.

I may commence by stating that in twenty-seven winters I have passed at Nice, we have never had so long or so severe a season of cold as the present one, the worst and most trying part of it having been during the time you were here, and the invalids have felt it proportionately.

Nice is, indeed, as I mentioned to you, unfavourable to a large proportion of persons suffering from affections of the chest, of whom a much smaller number are now sent to Nice than formerly. Where tubercular phthisis has advanced beyond the first stage, I have rarely seen any invalid improve at Nice, but chronic bronchitis, peripneumonia, notha or winter catarrh, with profuse expectoration, and even that most capricious malady *asthma* (in some forms), are all benefitted by a residence at Nice, and I have known many individuals who had a great facility for catching cold (as it is termed) become much less susceptible from a winter at Nice.

The part of Nice best suited to these cases, as you yourself must have observed, is on the land side, away from the sea, including Cimies (the site of the old Roman City), St. Etienne, Carabacel, and St. Barthelemi.

These districts are all considerably more sheltered than the town of Nice, and in consequence of the absence of wind, the temperature is somewhat higher; the air too is more moist—a great advantage in a climate where rain does not fall for many weeks together. The most sheltered part of the sea-shore is beyond the port, in the quarter called the Lazaret.

The peculiar property in the Nice air which seems so unfavourable to consumptive patients is also very trying to dyspepsia of an irritable character; whilst, on the contrary, in nervous dyspepsia and many chronic conditions of the asthenic class, the dry stimulating air of Nice is very advantageous.

Indeed it is in the broken down condition of health, after severe illnesses, &c., that the most surprising effects of this climate are visible, with scarcely any medical treatment whatever.

Loss of physical and mental energy from whatever cause seem gradually to disappear, and there is never a season at Nice that some remarkable instance of this kind does not present itself.

Nice is also remarkable for its favourable effect in rheumatic and gouty complaints, in neuralgia also, where the patient will take ordinary precautions in avoiding drafts and sudden changes of temperature.

On this latter point, as in all countries where the sun is powerful, and the air, from the proximity of snow-mountains, cold, too much stress cannot be laid on the danger of being out about sun-set, from the sudden abstraction of heat from the surface of the body by evaporation.

There is a peculiarity along this coast in the inability, which many persons experience, as to sleeping close to the sea, whilst a removal to a distance of only a few hundred yards will very frequently remove this difficulty altogether, this occurs so frequently as scarcely to be credible if not noted by an eye-witness.

I ought, perhaps, to mention that our finest months are usually November, December, January, and February, especially the two former, when the sky is frequently for many days together without a cloud. March, as in every other part of Europe, is a windy month, but on an average of twenty years, there are not more than ten or twelve days of wind between the 25th February and 10th of April of each year.

Intermittent and other fevers are of very rare occurrence at Nice, either among the natives or visitors.

The facility of reaching Nice of late by rail has been a snare to many invalids—inducing them to remain too late in England and other cold countries.

To secure the full advantage from his winter in the South, the invalid should be established in his quarters by the end of October.

I dare say I have omitted many things which you would have proposed to me, had you been at hand, but I think I have included everything of importance that could come within the scope of a letter. Should I not have done so, you have only to write to me, *any direct questions* which I will answer *seriatim* to the best of my power.—Believe me to remain, yours sincerely,

W. A. Travis, M.D.Edin., F.R.C.P.L.

Dr. Trousdell, L.R.C.S.G., writes to me as follows :—

"I would strongly recommend medical men in Great Britain to send all cases of albuminuria, whether associated or not with gouty diathesis, to Nice. According to my experience in such cases, relief is obtained very soon, indeed, after a residence here. The skin which before refused to act, as a general rule, now acts abundantly; and œdema of the extremities (should such be present) disappears in a very short time. The patient being able to live the greater part of the day in the open air and *sunshine*, rapidly regains his appetite and strength, and is able to take and enjoy long walks, instead of being shut up in his room as at home, with no other object in view than attending to, and keeping up a *good fire*. But at the same time the invalid must observe certain precautions, and not expose himself to currents of *cold air*, which are to be found in shady places; nor is he to remain out of doors until sunset, as the air suddenly be-

1 I regret to say that the sewage of Nice is in a very imperfect state; in fact, if I am rightly informed, there is no sewage properly so called, every house having a tank which has to be emptied from time to time, and the stench of some parts of modern Nice, especially on the Quai Massena is sometimes intolerable. I am told that the attention of the municipal authorities has been forcibly drawn by the medical men of Nice to the neglected condition of the sewage of the entire town, and it is to be hoped that ere long this serious drawback to the sanitary advantages of Nice will be rectified.—J. S. H.

comes cold, and a heavy dew falls a short time before the sun goes down. In albuminuria, as well as in all cases of a gouty or rheumatic tendency, a residence at Nice throughout the summer months would, in my opinion, confer more benefit than even during the winter months, as a continual free action of the skin is kept up, without any *depressing* effects from the heat of the climate; and at this season, in addition, an invalid is not subject to the chances of catching colds by sudden changes of temperature as in the winter and spring months; nor is he *debilitated* in any way by the *asserted* great heat of the climate.

"I have been induced to make these few remarks as to a summer's residence at Nice, as I know that it is generally believed by most, if not all of our winter visitors, that Nice is, or *must* be, a perfect *furnace* during the summer months; I am, however, in a position to say that such is not the case. Last summer, the thermometer stood at 84° in the shade at noon (except for a very short time, when it rose to 86°) for nearly three months, and so steady was the temperature during these months, that the thermometer registered the same heat each day at the corresponding hours; and every day from about nine A.M., a strong sea breeze set in, and blew uninterruptedly up to about five P.M. many days, causing such an amount of surf on the beach, that it was impossible for the bathers to enjoy their swim. In fact, an invalid may spend his entire day out in the open-air in summer as well as in winter; at mid-day he may saunter (or sit out) either on the shady side of the streets, or under the shelter of the beautiful trees, under which a person may walk almost from one end of Nice to the other without even seeing the sun. The sea-bathing at Nice, which is excellent, is prolonged to a late period in the year. And as for the genial nature of the climate in the mornings and afternoons, it is really more delightful than I can possibly find words to describe it in. Thunder-storms are not frequent during this season, and when they do occur are not severe; they are attended by heavy showers, which are very refreshing. I may add here, that although no rain falls for three or four months, except an occasional shower of this sort, that the country does not look dried up and burned as in England, after a few weeks dry weather in summer. To all this, there is an abundance of fruits of all kinds (marvellously cheap), flowers and vegetables, house-rent at an extremely low price; carriages, row-boats, and little yachts for hire, easily to be got, and at a moderate tariff — with many other advantages which are too numerous to mention in this short paper, but to which I would strongly call the attention of my medical brethren, when in any doubt as to a fit place to recommend a change of climate, during the summer, to any of their patients who may be affected with the diseases I have named above.

"To return to the winter season. Another class of disease for which I would recommend a residence at Nice is dyspepsia, in most of its forms, whether as a primary or secondary lesion, and especially that form of the disease brought before the Medico-Chirurgical Society by Dr. Fuller, attended with extreme langour, restlessness, flatulence, and acidity, with an excess of urea in the urine. In this complaint I have seen the greatest benefit, in fact a perfect cure, result from a winter's sojourn at Nice.

"Lastly, I would call attention to a class of people who though not, strictly speaking, 'invalids,' nevertheless are always ailing, and during the winter and spring months scarcely if ever breathe the open and pure air. Such people are generally in the decline of life; readily catch cold in the least exposure; are always 'wheezy' or rheumatic, and, as a rule, from the sedentary, shut-up lives they are obliged to lead, die years before their time. To such people and their medical advisers I would say, and earnestly entreat them, as soon as October sets in, set off at once for Nice for the winter months, where, by passing the best part of the day in the open air, they will gain a 'Renewal of Life,' and thereby add years to their existence. I could quote many such cases of prudent elderly people who yearly make Nice their winter residence, receiving as their reward the greatest of all blessings, health and longevity.

"One very great advantage which I consider Nice possesses for the invalids, or that last class of persons, viz., those who come here to 'cheat' the winter, is that it offers a great variety of amusements all the day long, and from its great extent and large population, especially in winter, increased as it is by people of all nations, that the invalid is not constantly meeting with other invalids, thereby reminding him perpetually of his misfortunes, and I have no doubt that the very gay and amusing scenes which constantly keep the mind away from thinking or brooding over the ills of the body, contribute in no small degree to the hygienic and restorative effects of this more than favoured spot of the South of France.

"Many people are deterred from coming to Nice on account of the great distance it is from England, but in these days distance is nothing. A few years ago it was a formidable journey to undertake, both as to time and expense. Now-a-days, the railways and steamers have done away with both.

"In fine, I may sum up these observations by saying that in the class of cases I have named, that the climate of Nice is the most powerful *restorative means* at our command."

(To be continued.)

NOTES ON ACNE ROSACEA.

By H. S. PURDON, M.D., L.R.C.P.Edin., L.R.C.S.I.,

PHYSICIAN BELFAST DISPENSARY FOR DISEASES OF THE SKIN, ASSISTANT-PHYSICIAN BELFAST CHARITABLE INFIRMARY AND INSTITUTION, ETC.

THE nose is the common seat of acne rosacea, the integument being of a deep violet colour, covered with elevations which slowly suppurate. The affected skin is thickened and infiltrated, and in chronic cases the alæ are pendulous, granulated, and liable to ulceration, in many instances the superficial veins are enlarged and varicose.

Mr. E. Wilson considers acne rosacea to be an eczematous affection, and Hebra states that "accumulated sebaceous matter often sets up an inflammation of the follicles, which would naturally be termed a folliculitis, but is generally called acne." This observation endorses the statement of Dr. Ross, who looks on acne rosacea as due to a determination of blood to the capillary vessels—a hyperæmia—which leads to inflammation of the sebaceous follicles, which pustulate, but do not mature readily.

Hardy considers acne to be a purely local disease, and, according to Mr. E. Wilson, "Gutta rosacea originates in debility, most frequently assimilative, next nutritive and sometimes nervous, is chronic in duration, and possess close sympathies with the digestive and reproductive organs."

In gutta rosacea, as well as the other forms of acne, the tongue is generally covered with a white, creamy fur, especially in the morning. When such is the case, the best treatment to commence with is the administration of the sulphates of iron, magnesia, and quinine given in infusion of calumba. This mixture will have the effect of cleaning the tongue, gives tone to the stomach, acts as a mild aperient, and prepares the way for the administration of arsenic. I agree with Mr. Milton that "lowering remedies" are injurious in acne rosacea, which is a disease due to debility, the subjects of it having usually impaired appetites and weakened digestion. Tonic remedies are indicated, and nitro-hydrochloric acid in decoction of cinchona has been recommended, especially as it acts on the liver, an organ generally at fault. The internal use of cod liver oil is also very beneficial. But to cure this disease permanently it is generally necessary to put the patient under a course of arsenic, and which may be commenced as soon as the tongue is clean and the liver in proper working order, the preparation that I usually prescribe is the liquor sodæ arseniatis, given in doses of ten drops thrice

daily after food. In some cases where the patients are what is commonly called "bilious," it is necessary to order taraxicum, and the following is a good form for its administration, it also acts as a diuretic :—

℞ Decoct. scoparii, ad ℥viii.
Spt. etheri nitrosi, ℥ii.
Succi taraxici ℥i.

Sig., a tablespoonful three times in the day.

For flatulence, a common complaint amongst these patients, the efficacy of the compound tincture of cardamom is well-known, or the following, if the appetite is impaired and depression of spirits complained of :—

℞ Tinct. valerian ammoniat, ℥iss.
Quiniæ sulphat, gr. xx.

Sig., a teaspoonful three times a day in a wineglassful of water.

The nitro-hydrochloric acid foot-bath is also a valuable agent.

In the treatment of acne rosacea by external applications, the hypochloride of sulphur ointment, one drachm to the ounce, is a very valuable application, and stands first on the list in importance, being superior to the iodide of sulphur. The following ointment I have used in several cases with the best results :—

℞ Hydrargyri iodi virid, gr. x.
Sulphuris, ℥i.
Adeps, ℥i.

A little oil of bergamot or bitter almonds may be added to cover the smell of the sulphur. Individuals, the subject of acne after exposure to excess of heat, as over a large fire, are frequently troubled by an increase of inflammation of an acute nature in the affected part. In such cases the constant application of the "glycerole of starch" for a few days is of benefit, and in place of soap the following may be used :—Take of glycerine, by weight, five parts, yolk of egg four parts, mix; this application, which has lately been recommended in the *Philadelphia Journal of Pharmacy*, is of a very soothing nature, and is of the consistence of honey, a little of which can be applied before exposure to cold, heat, &c.

In inveterate cases, painting the part affected with the solution of the terchloride of antimony for a few seconds, and afterwards applying a sponge soaked in a solution of carbonate of soda, is of benefit, especially when the integument is much thickened ; a poultice of rice-flour being applied at night, or Dr. Ross's method of treatment may be adopted instead, which consists in puncturing each separate tubercle, and inserting an ordinary capillary vaccination tube, containing a drop or two of nitric acid. This excites inflammation of the follicles, and thus occasions obliteration. I can strongly recommend this method of treatment as I have found it successful in many cases where ointments and lotions had proved useless.

It is a common custom to prescribe the bichloride of mercury in the form of a lotion in the treatment of acne ; now, if this remedy be persevered in for any length of time, it occasions a scaliness and hardness of the cuticle which is very annoying. Borax has quite the contrary effect ; it is equally efficacious, and can be prescribed in conjunction with glycerine and tincture of benzoin.

THE TREATMENT OF HÆMORRHOIDS.

By J. MULVANY, M.D., L.R.C.S.Ed., Etc.,
ASSISTANT-SURGEON ROYAL NAVY.

FEW diseases occasion more distressing sensations than internal hæmorrhoids ; few are productive of more corporal debility, or mental disquietude—irksome to the patient, hitherto contumaceous to the physician, they have long afforded an arena for the exercise of surgical skill : the number of remedial agents which from time to time have been recommended for their removal, affording at the sametime ample evidence of the fecundity of the inventive genius of the faculty, and the intractability of the affection. Blisters, the actual cautery, persulphas, and perchloras ferri, the knife, the ligature, separately and conjointly, have been warmly extolled. Latterly, to the application of nitric acid, first, I believe, used in Dublin, is unanimously conceded the largest meed of laudation. But however efficacious such an application may be, the nervous, debilitated, chronic sufferers, who form the majority of those seeking surgical aid in those cases, will not submit without repugnance to the employment of so potent an agent. A simplification of the mode of treatment, sans the knife, nitric acid, *et hoc genus omne*, occurred to me, might be suggested by a careful consideration of the anatomy during health, and the pathological condition during varix of that portion of the alimentary canal, which may be termed the hæmorrhoidal region, extending from the anus to a line or two above the internal sphincter. Superiorly, this is lined by mucous membrane, by no means intimately adherent to the subjacent tissue ; inferiorly its character changes, and becomes muco-cutaneous ; whilst, in the middle third, we find the cutaneous element prolonged into triangular vertical linguettæ, named by Morgagni, the columns of the anus. At their junction, *en bas*, they form a number of valvular folds more or less elevated, with their concavities directed upwards, which are deserving of attention. Next to the mucous membrane is the cellular coat in which the hæmorrhoidal vessels ramify ; more externally are the sphincters, next a few pale muscular fibres, prolonged from the longitudinal bands, imagined by Sappey to assist in dilating the anus, and which probably serve by their contraction to assist the movement of the venous blood through the superior hæmorrhoidal vein. Next in order we have the levator ani, and then a soft yielding, adipose cushion filling up the ischiorectal fossa. The vascular supply, derived from the inferior mesenteric, internal iliac, and pudic arteries, is returned by two sets of veins into the systemic and portal systems. By the inferior hæmorrhoidal, the blood collected from the anus and external sphincter, is poured into the internal iliac. This vein differs from the superior in its comparatively short course, and its being provided with valves. The superior hæmorrhoidal, commencing in an intricate network, much more extensive than that of the inferior, situated beneath the semilunar valves of Morgagni, ascends into the abdomen as a tributary of the portal.

Thus we see that this vein is pre-eminently disposed to varix, from a variety of causes, viz. :—its length, rendering it so liable to pressure ; its opening into the splenic, almost at right angles behind the pancreas ; its blood having to pass through the liver ; its being unprovided with valves ; the tendency of the Morgagnian festoons to obstruct the passage of hardened fæces and favour their impaction ; their relation to the venous plexus, whereby this will probably be dragged down, when prolapsus of the mucous membrane occurs from the pressure of impacted fæces ; straining at stool, &c. ; the laxity of the mucous attachment ; the yielding walls of the canal and constitution of the muscular planes during defecation, contribute towards the same result.

The immediate causes of hæmorrhoids are such as lessen the *vis a tergo*, or impede the venous current, *a fronte*, the former constituted by general muscular relaxation, and diminished contractility of the hæmorrhoidal arterial coats, as frequently results from residing in the West Indian climate. The latter, by mechanical impedimenta, removable or irremovable. Of the removable, constipation is by far the most frequently exciting cause, for, when habitual, the muscular walls of the rectum gradually lose their tone and sensibility, and become more or less paralysed by the excentric pressure of the contained fæces, dilatation succeeds, and the ascending column of blood from the rectum thus pressed on, suffers retardation, is thrown back on the hæmorrhoidal plexus, and varix ensues.

In warm climates, in consequence of the rarefaction of the atmosphere, the liver is called into increased activity, to supplement the lungs, and the blood is depurated by the increased elimination of its biliary elements. Thus a

tendency to relaxation of the bowels, or diarrhœas, exists at the same time; owing to the debilitating effects of caloric, relaxation of the muscular tunic of the hæmorrhoidal arteries takes place with partial paresis of their vasomotor nerves, as may be inferred from the dilated condition of the corresponding capillaries; hence an unusual afflux of blood to the anal region takes place, which, if further augmented by hepatic torpor, or by the constriction of the muscular planes surrounding the gut during a violent diarrhœa, such as is likely to occur in the crisis of a bilious remittent, cannot be directly propelled by the weakened heart through the portal system, and if not finding a ready outlet through the systemic veins, will, necessarily, press with increased gravitic force on the hæmorrhoidal venous plexus and capillaries, and these yielding, become varicose, and pushing before them the lax mucous membrane and Morgagnian structures, descend as a hæmorrhoidal tumour into the bowel, where, exciting spasmodic contraction of the sphincter, and inducing irritation of the bladder, it becomes the head and front of a series of uneasy sensations, which render defecation a martyrdom, produce constipation, and thereby *emperran el mal.*

For a somewhat similar reason the disease is frequently met with amongst stokers, the heat of the fires producing muscular relaxation, and their stooping and holding the breath, with the diaphragm consequently fixed, during the act of shovelling, increasing the amount of blood in the abdominal veins.

The internal pile, so produced, is broad and vascular, has a tendency to abrasion, bleeding, and inflammation. It may be regarded as the true internal pile, the change of shape, consistence, appearance, or character which it is apt to undergo being the effects of subsequent inflammation and effusion of lymph or blood; it differs from the external in being composed of capillaries, veins, and relaxed Morgagnian columns, in denoting a greater amount of embarrassment in the hæmorrhoidal circulation, and in the external, as well as what has been called the intermediate pile, being the result of a minor degree of retardation from pressure, or causes purely local, such as heat, cold, irritation from various sources, &c.

For the purposes of treatment, hæmorrhoids may be classed under three heads—1st, those requiring constitutional treatment alone; 2nd, those for which topical applications suffice; and, 3rd, those for which a combination of topical and constitutional remedies are requisite. Under the first head come the true internal pile, and that in which the capillary element is less prominent. Under the second are the external and intermediate piles, whilst the third embraces the cellular, erectile, fleshy, warty, &c., internal piles.

The rationale of treatment is extremely simple, and consists in the adaptation of remedial agents to correct the pathological conditions on which they depend—in other words, to remove constipation, restore peristaltic action, give tone to the paralysed muscular tissue of the great intestine, constringe the dilated hæmorrhoidal capillaries by increasing the contractility of the middle coats of their supplying arteries, and thus enable the veins to resume their normal degree of rectitude.

In belladonna we possess an agent capable of supplying by its physiological action all these desiderata. Because, acting through the intestinal branches of the solar plexus, it will increase peristaltic action, and restore tone to the paralysed muscular fibres of the colon and rectum, by which means the bowel may be unloaded and kept in a state of solution, and pressure be thus taken off the hæmorrhoidal plexus and semicircular festoons, a desideratum which may be much accelerated by the previous administration of a dose of castor oil, to clear out the bowel and facilitate absorption.

Again, by acting on the vasomotor nerves of the hæmorrhoidal arteries it will promote the contractility of their muscular tunics, lessen the supply of blood to the trajet-anal, and thereby check bleeding, and, at the same time, diminish the size of, and ultimately remove, hæmorrhoidal tumours of the first class.

On these data, I was led to the employment of belladonna in those cases 18 months ago, and have every reason to be satisfied with it. In November, 1866, a relative of mine, Mr. M——, came under my care for bleeding internal piles of two years' duration, brought on by residence in the tropics, and a severe diarrhœa. The hæmorrhoid was large, vascular, very hot, protruded, and bled during defacation; gave rise to much vesical irritation; a constant feeling of fulness in the rectum; constipation; frequent desire to go to stool; much mental uneasiness; emaciation, and general debility. His sufferings were great, so great that they finally overcame a constitutional aversion which he entertained against all surgical operations; and he submitted to have anything done to give him relief. Having once induced an epileptiform fit in a much stronger patient by touching his chancre with nitric acid I determined to reserve this as a *dernier ressort*, and having cleared out his bowels with a dose of castor oil, I prescribed the fluid extract of belladonna for him in ℥ii. ss. doses, every four hours, and ordered a lavement of cold water, *bis die.* In two days the bleeding had quite ceased, and in ten days the hæmorrhoid had entirely disappeared, and has not returned since, though the laxity of mucous membrane still continues, and causes it to prolapse slightly at stool.

To give a number of similar cases with like results would be a useless repetition. I may, however, mention that I have used it with perfect success in the case of a lady eight and a-half months pregnant; believing that the gravid uterus acted indirectly by pressure on the fæcal tract, rather than on the veins, and that the consequent accumulation of fæces was the obstructing power to the free return of the venous blood, and knowing that belladonna is extensively used in America during the last days of gestation for dilating the os uteri, I, as she was then suffering a good deal from the bleeding internal pile, put her on two minim doses of the fluid ext. belladonna, *ter die.* A cure was effected in less than a week. I, however, continued the belladonna to the period of her accouchement, and I certainly think it facilitated her labour.

For the external pile the grease which runs from the hot bearings and eccentrics in the engine-room of a steamer when under steam, will be found an unfailing remedy. Chemically considered, it is rather complex in composition, and may be presumed to be a combination of the fatty acids and oil, used as lubricating materials, with the oxides of the more oxidisable metals exposed to friction. By the bearings are meant the fixtures in which the shaft works. They are made of brass and lined, to a certain extent, with a patent metal, composed of copper, tin, and antimony, or of zinc, lead, antimony, and platinum. The shaft is formed of wrought iron, and the brass is composed of copper, zinc, and tin. The bulk, however, of the metals oxidised, judging from a rough analysis I made, is formed of the copper and lead. There was hardly a trace of zinc, and none at all of the others found in a drachm of the ointment.

As the liquified grease drips from the bearings, it is caught in a "save-all," and on cooling is fit for use. It should be mixed with one-eighth its bulk of lard. It then forms an ointment of a pale blue colour, the efficacy of which is so well-known to the stokers that they treat, *sub rosa*, nearly all the cases of piles that occur on board ship. A chief stoker of my acquaintance told me he had treated successfully over fifty patients. He used it indiscriminately for all kinds of piles. From my own experience, I can only vouch for its utility in cases of the external or intermediate varieties; but lately I treated a stoker with it whose anus was festooned with mariscœ, without putting him on the list or getting him excused from duty. He was rid of his garnitures in about a fortnight. It proved equally efficacious in the case of a jockey from the United States, who suffered from the internal, fleshy, and external piles during a number of years, and who had to resign his occupation in consequence. It is needless to say this man had numberless remedies recommended, but *cui bono?* His

occupation was gone, and could not be pursued until the ointment gave their *congé* to his unwelcome guests.

For the varieties of internal hæmorrhoids which come under the third heading, the castor-oil and belladonna, administered by the mouth, and the ointment applied locally, will usually suffice. How the ointment acts I can only conjecture, but can recommend it with confidence as safe, efficacious, and productive of but very little pain. It will, I think, be generally found that if nature dispenses afflictions to the human race with her left hand, she showers their panacea on us with her right; and if she sends sickness and disease in our midst, she also places their remedies within our reach, and leaves us to find them. To the Bolivians, for their various calenturas, she has given the Calisaya. If the bothriocephali find a commodious habitat in the dura ilia of the vassals of Theodorous, or perhaps in those of his sable majesty himself, has not nature drawn up a process of ejectment in the flowers of the Brayera Anthelmintica, which will not endanger the life of a bailiff to serve?

Do not the natives of the West Coast of Africa, when suffering from dysentery, find its specific in the fruit of the banana, prepared *secundum artem*, and found growing in the greatest profusion? and could she be less bountiful to stokers? No; if she permits the heat of the stokehold to festoon the anus of the stoker, she also prepares in an impromptu laboratory, in which the shaft and bearings, converted into a pestle and mortar, rub up the lubricating materials, and by means of heat, friction, and the atmosphere, produce an unguent calculated to remove his questionable decorations—one which, to use the language of an enthusiastic stoker whom it recently quit of such appendages, "is worth its weight in gold!"

Hospital Reports.

RICHMOND SURGICAL HOSPITAL.

Cases under the care of Mr. STOKES.

(Reported by Mr. JAMES ROSS.)

ŒDEMA OF THE GLOTTIS, IN A CHILD ÆT. THREE YEARS, FROM THE INHALATION OF STEAM: TRACHEOTOMY: RECOVERY.

THE following case is one of very considerable surgical interest, and illustrates, in a remarkable manner, the great practical value of the early performance of tracheotomy in certain cases of œdema of the glottis.

Ann Fullam, æt. three years, was admitted into the Richmond Hospital, on Tuesday evening the 19th ult., suffering from very great dyspnœa. Her mother stated that at five o'clock in the evening, the child attempted to take a drink from a kettle in which there was a quantity of boiling water. Nothing occurred in consequence of this to attract attention, until after the lapse of about two hours, when the breathing becoming short, quick, and stridulous, she was brought to Hospital. The following note was taken on the patient's admission:—"The lips were found to have been scalded, and there was a mark down the chin as if produced by a stream of boiling water. The soft palate was whitish, but the tongue was not burned. There was great dyspnœa, with considerable stridor, and a crowing noise resembling that in croup when she cried. The face was not much congested, but had a glazed, red, shining appearance. She could scarcely speak, uttering now and then a few syllables which were hoarse and rough."

The case was seen by Mr. Stokes shortly after 10 P.M., and notwithstanding the prompt measures which were had recourse to in order to relieve the dyspnœa, consisting of hot fomentations, poultices to the throat, local depletion, and the active administration of antimonials and mercury internally, the symptoms, as the night advanced, grew worse.

The dyspnœa, which came on in paroxysms of great intensity, became much aggravated, being more frequent and more violent, so that at times the patient was in imminent danger of suffocation. After midnight the symptoms became so alarming, that Mr. Stokes determined that tracheotomy was the only resource left in order to save the patient's life. The operation was accordingly performed above the isthmus of the thyroid, and was greatly facilitated by the tracheotomy hook of Langenbeck. The tube which was introduced was of a size fully adapted for an adult, and to this circumstance Mr. Stokes attributes largely the success of the operation.

On the completion of the operation immediate relief ensued, and the child slept soundly the whole night, the tube being occasionally cleared of mucus by means of a feather or a bent probe, with a little French wadding tied on it.

May 20.—Progressing very favourably; does not suffer any inconvenience from the tube; is very drowsy, and sleeps a great deal. In order to arouse her from what appeared a sort of semi-comatose condition, we administered a small quantity of green-tea, which was suggested by Mr. Adams. It had the desired effect. She took also plenty of nourishment, consisting of chicken-broth, egg-flip, wine, &c. The inner tube only required to be taken out once to be cleaned.

21st.—She slept well during the night. The tube required to be cleaned once, and during the day twice. The mucus is very tenacious, and neither a feather nor a probe armed with lint has any effect in bringing it up. Sometimes cleaning the inner tube seems to have no effect in giving relief, the mucus in the trachea being driven up to the outer tube, and is only got rid of by coughing. In the evening there was a slight attack of vomiting, which relieved her greatly.

22nd.—The child sat up this morning. Does not suffer apparently from any inconvenience in wearing the tube. The bowels were well moved.

23rd.—The tube was taken out this morning, but the glottis not being free enough for the child to breathe through, the tube was replaced. The child is cheerful and lively, and eats heartily.

24th.—The tube was taken out to-day, and as it was found she could breathe slightly through the mouth, the tube was left out. Large quantities of viscid mucus are frequently expelled through the wound.

25th.—Patient breathes much more freely through the mouth to-day, but cannot yet speak. Small doses of carb. ammoniæ in syrup of orange flowers were administered.

28th.—Patient attempting to speak. Wound in the trachea granulating and closing quickly.

29th.—Articulation much more distinct. Child very anxious to get up.

30th.—The opening in the trachea is now so small as to be scarcely perceptible. Patient speaks distinctly. Appetite is excellent. Patient is cheerful and happy, and respiration perfectly natural.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. TONGE.)

ALCOHOLIC POISONING.—W. B., æt. 39, chimney-sweep. Admitted December 25; discharged January 2; in hospital 8 days. *Recovery.* Drank half a bottle of gin shortly before admission. Then completely comatose; blue in the face; pulse very slow; breathing stertorous. Bronchitis afterwards.

Stomach Pump. Cold affusion. Wet towelling. Galvanism. Afterwards carbonate of ammonia, chloric ether, squills and senega.

HYDATIDS OF LIVER AND LUNG.—John W., æt. 19, mattress-stuffer. Admitted May 30; discharged August 31; in hospital 92 days. *Relieved.* Readmitted October 17. *Died* on November 14; in hospital 28 days. Subject to cough for some time; liver enlarged 1 month; cough worse 2 days. On admission, much greenish expectoration;

dulness and diminished vocal vibration below right scapular angle; breathing feeble at right base, elsewhere harsh; pulse 80; respiration 32; liver nearly down to umbilicus; 9 days later watery sputum, half-pint; 11 days later 4 pints, greenish brown expectoration; 12 days later expectoration yellow and fluid; 1 week later, a pint of bitter yolk of egg coloured sputum expectorated. After this the pain and expectoration became less, and the liver receded to 1 in below the margin of the ribs. Went to Seaford when discharged. On readmission breath shorter, pain worse; much tenderness in right lateral region; expectorates about 1 pint of yolk of egg coloured, bitter, sputum daily. Physical signs as before, but good breathing over right back except at base; liver larger. On November 13, sudden severe abdominal pain; cold sweats; diarrhœa; thready pulse; death on 14th.

P.-M.—A large abscess between liver and gall-bladder had burst into peritoneum, which contained much pus and recent lymph. In lower lobe of right lung was a large, irregular cavity, containing many yellow shrivelled hydatids, and communicating by an aperture in the diaphragm with a shrunken cyst in right lobe of liver. Lung, diaphragm, and liver were here all adherent. The right lobe of the liver was much smaller than the left lobe; puckered and fibrous on its surface, and some portions of it partly softened. There were seven or eight small gall stones in the gall bladder.

Dilute hydrochloric acid; liquor conchonæ and chloric ether. On November 1, henbane and aromatic spts. of ammonia; cod-liver oil; morphia.

Gout.—W. W., æt. 54, whitesmith. Admitted June 28; discharged July 25; in hospital 27 days. *Recovery.* No family history of gout. First attack 20 years ago in metac-phalangeal joint of right index-finger; frequent attacks since. Previously ill, 3 weeks. Right index-finger, right ankle and knee, and left knee affected successively. Tongue slightly furred; pulse 68; free from pain on 39th day. Fresh attack in left great toe 3 days later.

Bicarbonate and nitrate of potass (7 days). Then iodide of potassium and liquor cinchonæ; aperients.

Gout.—W. W., æt. 54, whitesmith. Admitted June 28; discharged July 25; in hospital 27 days. *Recovery.* After discharge on June 22, remained well for 6 days; then pain under left clavicle and pain and tenderness of knees, ankles, and right hand. Dyspnœa; dry cough; pulse 102; respiration 36. Chest sounds normal.

Bicarbonate of potass, carbonate of magnesia, and colchicum (9 days). Then same with liquor cinchonæ; alkaline lotion; aperients.

Gout.—G. P., æt. 44, paperhanger. Admitted Sept. 19, discharged Nov. 23; in hospital 65 days. *Recovery.* First attack 15 years ago in left great toe; second, 5 years later; third, a few months afterwards; since then has had about two attacks yearly. Previously ill, 1 day. Right hip and left hand, left ankle and hip affected; finger joints of right hand enlarged; free from pain on tenth day; twelve days later return of pain in left ankle; right wrist and fingers, left arm and right ankle afterwards attacked.

Bicarbonate of potass, and liquor ammonia acetatis, opium, liquor cinchonæ, chloric ether, and bicarbonate of potass; warm and alkaline baths; aperients.

Acute Rheumatism.—Elizabeth M'C., æt. 31, artificial flower-maker; admitted May 20, discharged June 25; in hospital 36 days. *Recovery.* First attack; previously ill 8 weeks. Had got wet shortly before. Left ankle, knee and hip, successively painful and swollen; free sweating. On admission joints painful, no swelling; systolic bruit at heart's apex; pulse 80; tongue white.

Bicarbonate and nitrate of potass. Then bicarbonate of potass, and iodide of potassium; Dover's powder; aperients.

Acute Rheumatism.—Jane C., æt. 23, servant. Admitted May 5; discharged July 2, in hospital 58 days. *Recovery.* First attack. Previously ill 5 days. Right knee, left knee, ankles, and left shoulder affected successively; slight sweating; tongue furred; faint systolic bruit at apex; pain about heart on 7th day; on 8th day pericardial friction sound; on 15th day præcordial dulness extends 1½ inches above nipple; on 24th day præcordial dulness normal; on 25th day dulness and feeble breathing over right base behind; dulness and bronchial breathing over lower half of right lung behind on 27th day; free from pain in joints on 28th day; respiratory sounds normal on 23rd day. Systolic bruit persistent.

Aromatic spts. of ammonia and bicarbonate of potass (11 days); same with chloric ether (8 days). Afterwards aromatic spts. of ammonia, chloric ether, liquor cinchonæ, and hydrocyanic acid. Aperients. Brandy, 6 oz.

Acute Rheumatism.—S. W., æt. 15, housemaid. Admitted March 8, discharged April 6; in hospital 29 days. *Recovery.* First attack (?). Chorea twice 4 years and 3 years ago. Three months ago præcordial pain and palpitation (2 days), then pain and swelling of joints, on and off till now. Previously ill 14 days. Commenced with præcordial pain, seven days later joints of right side affected. On admission, joints of right side tender and painful, not swollen; free sweating; pulse 90; much præcordial tenderness; systolic bruit loudest at heart's apex; slight pericardial friction sound at base; finally free from pain in joints and præcordia on 23rd day, but inaudible after 27th day; systolic bruit persistent.

Bicarbonate of potass and bark (11 days), aromatic spts. of ammonia, liq. cinchonæ, and chloric ether (10 days); then quinine and iron. Aperients.

Acute Rheumatism. — H. C., æt. 23, bricklayer's labourer. Admitted November 30; discharged December 21; in hospital 21 days. *Recovery.* First attack; flying pains about joints 2 months. Previously ill, 8 days. Right ankle and knee, left knee and ankle, hips, shoulders, elbows, and wrists, affected successively. On admission, knees, hips, and right shoulder painful; tongue furred; pulse 120; respiration 28; free sweating; highest temperature, 102·5° F. Free from pain on 21st day. Heart unaffected.

Bicarbonate of potass, aromatic spts. of ammonia, and chloric ether. On 17th day, liquor cinchonæ *vice* pot. bicarb. (9 days); then dilute muriatic acid, quinine, and quassia; Dover's powder o.n. Aperients. Brandy, to 12 oz.

Acute Rheumatism.—A. M., æt. 29, charwoman. Admitted December 24; discharged February 20; in hospital 58 days. *Recovery.* First attack. Previously ill, 2 days. In hands, wrists, knees, shoulders, and elbows successively; loss of appetite; weakness; tongue furred; profuse sweating; pulse 100; respiration 28; free from pain on 25th day; slight return of pain in knees on 42nd day. Heart unaffected.

Bicarbonate and nitrate on potass, and quinine and opium. After 25th day, dilute muriatic acid, chloric ether and bark; opiates at night. Brandy 6 oz.

Sub-acute Rheumatism.—Lucy L., æt. 36, cook. Admitted November 13; discharged December 10; in hospital 27 days. *Recovery.* First attack. Previously ill, 5 days. Right ankle and knee, arm-joints, and left leg affected intense; free sweating. On 10th day, free from pain; pulse 120; tongue nearly clean; systolic friction sound at heart's base (2 days).

Bicarbonate of potass, aromatic spts. of ammonia, chloric ether, and liq. ammon. acetatis (12 days); then aromatic spts. ammonia, chloric ether and bark. Calomel and castor-oil on admission.

Acute Rheumatism.—Ann C., æt. 48. Admitted Nov. 17; discharged December 10; in hospital 23 days. *Recovery.* First attack 20 years ago; shortness of breath on exertion; and occasional pain; palpitation and dropsy of legs 1 year; has spat blood. Previously ill, 3 months; right ankle, knee, and hip, right shoulder, left hand and elbow, right hand and elbow and joints of left leg affected successively; free sweating. On admission, pallid, left elbow, shoulder, and knee stiff; pain in back and in lower part of chest; pulse 80; systolic bruit at heart's apex; tongue furred.

Bicarbonate of potass, chloric ether, and aromatic spts. of ammonia.

Acute Rheumatism.—T. K., æt. 21, footman. Admitted May 19; discharged July 11; in hospital 53 days. *Recovery.* Second attack; first 10 years ago. Previously ill, 1 week. Left ankle, right ankle, left knee, right knee, left elbow, right elbow, left hand, and hips affected successively. Much sweating. Slight yellowish fur on tongue. Pain at heart's apex; first sound prolonged. Pulse 76. Finally free from pain on 32nd day.

Bicarbonate and nitrate of potass. Then same, with liquor cinchonæ. Dover's powder. Aperients.

Acute Rheumatism.—T. W., æt. 23, labourer. Admitted Sept. 14; discharged Sept. 30; in hospital 16 days. *Recovery.* Third attack; the first 8 years ago. Shortness of breath and palpitation on exertion 2 years. Previously ill, 7 days. Commenced in ankles. On admission, knees painful and swollen; heart's dulness increased; sounds feeble; sibilus and coarse crepitation over lungs.

Bicarbonate and nitrate of potass (7 days), iron and gentian (2 days); then quinine and dilute sulphuric acid. Aperients.

Acute Rheumatism.—Francis A., æt. 17, servant. Admitted July 14; discharged July 25; in hospital 11 days. *Recovery.* Fourth attack; third 11 months ago. Previously ill, 14 days. Left ankle and knee, right ankle and knee, shoulders and elbows, affected successively. On admission, tongue furred, left knee swollen, appetite bad. Pulse 96. Old systolic bruit at heart's apex. Free from pain on 19th day.

Bicarbonate of potass and aromatic spts. of ammonia.

Acute Rheumatism.—J. L., æt. 75, labourer. Admitted Nov. 25; discharged Dec. 12; in hospital 17 days. *Recovery.* Previously ill, 21 days. Right elbow, neck, hips, and knees affected successively. On 25th day right elbow and left side of neck painful. Free sweating. Tongue thickly coated. Pulse 88. Free from pain on 31st day.

Bicarbonate of potass and liquor cinchonæ, Dover's powder o.n. Brandy 4 oz.

(To be continued.)

Literature.

DISEASES OF WOMEN.

Of the several branches of the healing art, not one is more important than that devoted to diseases of women. The general practitioner is daily called upon to treat such diseases, and as principles have lately been overturned and others more or less firmly established in their places, there are many able men who will be glad to read up the present state of opinion respecting them. To all such we commend Dr. Hewitt's new edition[1] as a guide well worthy of their attentive study. The former edition of this work consisted of the substance of a course of lectures at St. Mary's Hospital, and at once placed the author in a conspicuous position amongst London teachers. The new edition differs very much from the last, and will, we are persuaded, add to Dr. Graily Hewitt's reputation.

We find not only large additions, but a more careful and systematic arrangement of materials, which will aid both student and practitioner.

There is a clinical air about the volume which will be highly prized, besides which we notice a candour in stating opinions that is, unfortunately, too rare with accoucheurs, who as a body have monopolised too much of professional squabbles, and as a result acquired an opinionated mode of expressing themselves which we do not find in this book.

The first part of the volume is occupied with diagnosis, and we doubt not that this will be the most studied, for upon correct diagnosis all accurate knowledge of disease depends, and in this particular class of maladies more faults are made in diagnosis than in treatment—at least by those practitioners who are not pure specialists. To the student and young general practitioner diagnosis is everything. The principles of treatment are easily comprehended, and are not half so likely to be forgotten as the details on which diagnosis depends.

The first section of diagnosis is a summary, in nine chapters, of the data obtained without physical examination. Then come 16 chapters on data to be gained by physical examination of, the external generative organs, the orifice and canal of the vagina, tumours felt through the walls of the vagina, the uterus (by the toucher, sound, and speculum), the abdomen and the breasts.

Here is scope enough for the most patient clinical teacher, and far too much for criticism in the brief space allotted by the editor to a notice of this work.

We will, however, delay a moment to express surprise that the author prefers the bivalve speculum *in all cases*, and thinks so little of the commonly-used round instrument that he dismisses it without a word, as unworthy of notice. We confess ourselves sufficiently old-fashioned to hesitate to accept this dictum, and so long as the round speculum remains the most commonly-used instrument by all classes of practitioners, we think it deserves a little more notice. We know that each operator of experience is at liberty to please himself. Personally we are indifferent what we use; we think it is a "poor workman who finds fault with his tools," as the proverb has it, and we use the duck-bill as often as anything for ordinary examinations. Nevertheless the ordinary round speculum is so universally used that we think the student should be instructed in its employment. This is a small thing to take exception to, perhaps. But then, our doing so shows how excellent as a whole is the work before us.

The second part of Dr. Hewitt's treatise is devoted to pathology and treatment, and we are glad to find that this edition is considerably richer than the former in pathology.

The treatment is, as might be expected, described in an orthodox manner, and may therefore be safely accepted as a guide. We must really say no more in favour of the work, lest we be thought too partial, and we shall venture to mention one point on which the author seems reserved, though perhaps this arises from his evident desire to do justice to all. We allude to the operation of incising the cervix, which has been practised so much of late, and too frequently with disastrous results. Our reading of Dr. Hewitt inspires us with the feeling that he distrusts it in the majority of cases—as we do. We have known it practised in cases which have excited our indignation beyond anything in modern obstetrics, and that is saying a good deal. We should therefore have been glad had the author spoken in unequivocal terms respecting the conduct of the inferior imitators of Marion Sims, and told how seldom such a proceeding can be justifiable.

Our notice would be incomplete without reference to the illustrations, which are in the highest style of art. More than sixty of these, we are told in the preface, are original. The great portion of these are planned representations of cases, drawn in outline, in the first instance, by the author. These outlines have been reduced by the camera, and drawn by Mr. Bagg, whose name alone is a guarantee of their merits. Altogether the volume is one of the handsomest of the season, and stands in need of no recommendation from the critic. Its success is certain.

1 The Diagnosis, Pathology, and Treatment of Diseases of Women, including the Diagnosis of Pregnancy. By Graily Hewitt, M.D., &c. 2nd edition. London: Longmans and Co. 1868.

SCIENCE AND PRACTICE OF MEDICINE.

The man who undertakes to write in these latter days a complete work on medical practice, sets himself an encyclopædic task, and one, moreover, that is little likely to be appreciated. The student or junior practitioner, indeed, if he find the work clear and concise in expression, complete in its scope, full of information in a condensed form, and withal, not too abounding in disputation, will feel his obligations to the author, and cherish a life-long regard for the well-thumbed guide, giving it a place of honour on his shelves, and consulting it on many an occasion. Such a work has reached this year its fifth edition,[1] and we congratulate the author on his well-earned success, for that success is double, since a work possessing all the qualities we have named soon gets out of date, and new editions must constantly be called for to keep it *au courant* with the march of the times.

Dr. Aitken has been fortunate enough to have his labours highly appreciated. Each edition has been rapidly sold, and as he has been conscientious enough to thoroughly revise every one and bring it down to the date of publication, he deserves his success, and we sincerely hope he may continue to meet with the same favourable reception, so that we may see another and another edition in our own time. His publishers too deserve the same good wishes, for they have brought out the work each time in a manner that does justice to

1 The Science and Practice of Medicine. By William Aitken, M.D. 2 vols. Fifth edition. London: C. Griffin & Co. 1868.

its contents. In fact, the only fault we can pick is that these heavy volumes have not had their edges cut, an omission which has cost us two hours. Multiply this by the thousands of copies sold, and there is a waste of time incurred, which we consider the binder's duty to prevent. Besides, a book of reference of such sterling value ought not to have the top edges harbouring the dust for the want of the bevilling, which costs nothing. Rather let them be gilded, for in this case they are well worth it, though we would be content with any smooth edge.

To return to the contents of the volumes. They have grown rapidly with each quickly succeeding edition. The history of the work is worth a moment's attention. The first edition appeared in October, 1857. It was founded upon the volume on medicine in the *Encyclopædia Metropolitana*, an undertaking which has always interested us in a peculiar manner. The second edition came out in 1863, and as an instance of how all parties concerned in it were watching the progress of opinion, we may mention that it appeared on toned paper, in consequence of a recommendation in the *Ophthalmic Hospital Reports*, respecting books for close reading. In that edition, too, were first introduced diagrams of temperature in febrile diseases. Only one year afterwards a third edition was called for. This shows that the author's efforts to keep up to the time were fully appreciated, and the improvements he had introduced were likely to conduce to success. With another year, another edition was wanted and ready. The book was known in all directions, and might almost expect to have passed beyond criticism. Still the author kept pace with the progress of his professional brethren. And now we have a fifth edition. There has been a little delay in this, and the reason appears at a glance. Besides many additions, we have now the "New Nomenclature of the Royal College of Physicians of London," introduced and carried consistently throughout the work. Considering that this Nomenclature is not yet absolutely published, but that early proof-sheets were procured for the purpose, no one will deny that the author is determined to be behind-hand in nothing. This Nomenclature with the addition of the foreign names of diseases must be most useful. The only possible drawback to it is that the College, so slow in issuing it, may be very hasty in modifying it, though even in that case there is little fear but that Dr. Aitken will keep pace. If any other proof were wanted of the vigilance of the author, we might mention that Dr. Letheby's Researches on Food, just published in this journal, have been laid under contribution in the chapters on the Dietetic order of zymotic diseases. Further additions to the book have also been made in such subjects as aphasia, and now we have the application of the sphygmograph described.

Such works are for reference not for criticism; we place the volumes on our shelf of books of reference, in the full assurance that we shall again and again have to take them down, and although we may not have space allotted to us for further formal review, we are certain that in the course of our literary labours we shall not seldom have occasion to cite them, and that on many such occasions we shall be tempted to wander over these pleasant pages beyond the subject respecting which we consult them.

OBSTETRICAL TRANSACTIONS.[1]

The ninth volume of Transactions of the Obstetrical Society of London has appeared. It contains the papers read to the Society during the past session, and of which abstracts have been furnished by most of the journals. Some of these papers are now illustrated by plates. One of these is coloured, and is a picture of a very singular monster, described with commendable brevity but clearness by Dr. Ross.

TESTIMONIAL TO DR. GIMSON.—Last week a testimonial was presented to Dr. Gimson in recognition of his eminent services during the prevalence of the late disastrous fever at the village of Terling. The testimonial consisted of a purse of £100, and two massive silver cups bearing suitable inscriptions. Lady Rayleigh made the presentation on behalf of the inhabitants to Dr. Gimson, who in acknowledging the testimonial, referred to the exertions of Lord Rayleigh, the Rev. F. T. Hill, Miss Luard, and others, and expressed a hope that their handsome present and kind wishes might have the effect of urging him onward in the path of duty.

[1] Transactions of the Obstetrical Society of London, vol. ix., for the year 1867. London: Longmans and Co., 1868.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 10, 1868.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THIS college is on the eve of meeting at its annual conversazione. Under ordinary circumstances, such a meeting would show the "*entente cordiale*" which ought to subsist between the two principal divisions of the body corporate. It brings with it, however, one fatal remembrance which seriously diminishes the pleasure of meeting the college authorities. It is the *finale* to an annual act of great injustice, as regards the selection of members for the Fellowship. We do not imagine that the current year will witness any change in the system of selection hitherto adopted, and which now threatens to become a standing professional scandal. "*Ardua molimur*," but we shall ever and anon recur to this matter until some re-action is produced, some inauguration of a more wise, just, and generous policy. This cannot now be very long delayed, and if some initial impulse is not soon acquired within the college walls, the requisite pressure will be applied without.

Were the college to have the honesty openly to proclaim that the Fellowship is a kind of select club, or a society to which the friends of the self-elected council alone are eligible, both the profession and the public would at once understand what such title meant, and would probably care but little to disturb the present state of things. But while the title of "Fellow" is held out (as originally intended) as the reward of superior professional ability, the greatest possible misunderstanding must prevail in the minds of the non-professional public (if, indeed, they take any kind of interest in the matter), and a very great injury is done to many members of long standing, acknowledged professional merit, and unsullied honour, in unfairly excluding them year after year.

The plain truth, however, is that the Fellowship, as of late bestowed, is no *criterion* whatever of professional superiority—thus tested it is, in many instances, as utterly worthless as a degree given "*in absentia*" by some small foreign university, and about as calculated to be the laughing-stock of the entire medical scientific world.

In bye-gone times the college numbered many illustrious men—men as great in general as in special science—and before whom lesser men could deferentially incline without the painful sacrifice of self-respect. There were, in truth, giants in those days.

At present is this broad line of demarcation seen? Does such degree of scientific difference exist as possibly to justify a few men, arrayed in brief authority, in annually excluding from the Fellowship others with equal claim to

its possession. Let us not be misled by this chance possession of official authority "*alia res sceptrum, alia, plectrum.*" If we glance (we repudiate any disrespect) at that small clique who rule, it seems at will, the College acts, how much of exalted talent shall we really find—how large a share of literary accomplishments? How many among them have deeply marked the science-track of time? We seek in vain such impress of their tread. The foot of *Hercules* looks dwarfed, the lion's claw has lost its kingly outline.

It is this discouraging comparison (forcing its way even against our will) which galls so much. Men, as we have said, can be at once modest and deferent before unquestioned mental superiority, but they become impatient of the abuse of power when wanting the attribute which could render even injustice tolerable.

It is remarkable that a large number of the Fellows of the College who, it is well-known, are anxious for reform, still stand aloof and take no action in the cause, and passing strange that journalists and even Fellows, who long ago denounced the great abuses at Lincoln's-Inn-Fields, and laboured hard, and not perhaps without success, for their redress, should yet assume so passive an attitude with regard to equally flagrant abuses in Pall-Mall. It would be interesting to learn the special reasons for this change in their emotional centres—why, while eloquently indignant at the Surgeon's corporate wrongs, they close their inkstands and their ears at the recital of those of the Physician. They would pluck the mote from out their brother's eye, wilfully unmindful of the beam so manifest in their own.

As journalists we have fearlessly expressed that which is widely though silently felt—that the College of Physicians under its present faulty, nay more, unfair management, threatens speedily to become a scientific nullity, that it is in complete disharmony with the aspirations of the day—stagnant, while liberal eddies are circling freely around. We sincerely trust that ere long, to save it from itself, more public attention will be directed to it.

THE COMING ELECTIONS AT THE UNIVERSITY OF EDINBURGH.

I.—THE CHANCELLORSHIP.

Who shall succeed Brougham? This is the question that now agitates the general council. The fitness of things would imply that a great Reformer, or at any rate a great Liberal, must of necessity be elected. Yet the obstructive party have seen fit to bring forward a thorough-going Conservative to oppose Mr. Gladstone, who had been chosen by the Liberals as unquestionably the leader of the party, and as one of the greatest scholars of the day. Personally, we have nothing to say against the Lord Justice-General; but if he should defeat Mr. Gladstone, the opprobrium that Scotland is utterly insensible to the merits of all on the south of the border will acquire new force. To compare the two men is absurd, and we shall not attempt to do so.

If mere clanship is to rule the Universities, the sooner we understand so, the better for all. Their day will then be over, and no one will pity them when they droop under the Conservative regime.

Was it not the Tory candidate who laboured to perpetuate a teaching monopoly? Is it not he who has deprived St. Andrews of the power to grant degrees after full and just examination on the plan of the London University? By this are not medical men who aspire to the doctorship now, prevented from attaining it until they are past 40 years of age, and then only at the rate of 10 per annum? A more home question—to whom else is it due that graduates in Medicine of the University of which he seeks the highest honour cannot enter the general council unless they have attended classes in that University, while no such restriction exists on graduates in Arts or Divinity?

It is idle to ignore general politics when principles lead to such results as these. In a constituency of learned men, it is monstrous that such vexatious regulations should exist, and we will not believe that in support of them, their defender will poll more votes than the foremost Liberal statesman of the day, whose scholarship also reflects credit on the age. Medical men have a great interest in such questions as these, and unless they prove true to themselves they must be content to occupy a subordinate position. For our part we magnify our calling. No learning is more elevating, no profession more worthy of honour. Let us hear no more of obstruction. The medical graduates should come to the rescue, assert the honour and influence due to them, and even though Oxford reject her most gifted son, show that the modern Athens possesses a more liberal spirit, and will not break with her glorious past to install in the place of honour the nominee of obstruction and of law.

II.—THE PRINCIPALSHIP.

Who shall succeed Brewster?

This question also is one in which medical men, not only in Edinburgh but throughout the country, possess an interest. Especially must the medical graduates of the University itself look forward to the coming election as one in which much is at stake. We have already condemned as unworthy of such a constituency the proposal to fetch a candidate from India. This outrageous notion has apparently been dropped.

It is seen that the great medical baronet, to whom humanity owes so much, could not be opposed under such conditions. We had hoped that Sir James Y. Simpson would, in the end, have been voted into the Principalship without opposition. We regret, however, to hear that such is not likely to be the case. Sir James is a Liberal, and as such must expect the opposition of those who are unable to appreciate his scientific career. It is to be hoped that opposition does not spring from that small clerical party, whose knowledge of Hebrew he once so racily exposed, and whose dislike to scientific truth assumed the guise of ignorant prejudice. Surely the members of the University as a whole cannot be insensible of the lustre Sir James reflects upon them.

We should be the last to deny that party politics may fairly be admitted to such a contest; but, if the Liberals are true to themselves, it is impossible for a Conservative to win. Let it clearly be understood that politicians who on this question "rat," will be marked men. If they are true to their colours the profession will hail its representative man in Scotland as Principal of his university.

The conservatives have hit upon a notable expedient in proposing, as they have done this week, to put up Professor Christison. This learned Toxicologist has claims that we, as medical men, should be the last to ignore. To a great extent the profession and science would find in him a representative. But beyond the circle of his own pupils it is impossible to assert that his claims would be recognised as equal to those of the discoverer of chloroform.

We regret for his own sake, and for that of *alma mater*, that his friends should have placed him in this position of opposition to Sir James Y. Simpson.

We think that Professor Christison is sufficiently honoured in representing the University at the Medical Council, where, though his learning inspires respect, he has never, so far as we are aware, created any particular impression, and where his voice is never lifted up against the wrongs under which medical men groan. The Council indeed, as a whole, has been weighed in the balance of professional opinion and found wanting. Only one or two of its members seem to comprehend their true position. The rights and privileges of their corporations move them, but the sorrows and toils of their working brethren are ignored.

Of the helpless minority that is ready to do something, Professor Christison has never proved himself one—nor do we expect he ever will.

THE SCOTTISH REFORM BILL AND ITS VOTING CLAUSES.

THE Scottish graduates seem in constant danger of being disfranchised by some oversight. It was natural in the first draft of the Scotch Reform Bill to take the clauses as to voting-papers from the English Act, which regulates the voting for Oxford and Cambridge.

It was found, however, that these clauses would not work well, and alterations were accordingly made to suit them to so scattered constituencies as those of the universities.

An attempt has now been made to recur to the plan of the English Universities. Should this be carried, it will be necessary for every voter to sign a paper, get it testified by a justice of the peace, and then get it delivered to the returning officer, *by a graduate who can make a formal declaration that he also can testify to the signature.* It is the clause we have placed in italics that endangers the privileges of the graduates of all kinds, except the few resident in the university towns. With above 1000 graduates in England and Ireland, and a still larger number scattered throughout Scotland, and having little correspondence with the towns where their universities are situated, this clause will be an almost insuperable obstacle to the free exercise of the franchise. It is bad enough to have to get a signature verified by a justice of the peace—a precaution that has never yet been required or demanded in the election of any of the high offices in the universities—not even for the Chancellorship.

How, then, will it be if such a verified document is useless, unless prescribed by a graduate who can swear to the handwriting? We look upon such a restriction as an unjustifiable attempt to diminish the number of the voters, and one which should be resisted at all cost. Every graduate will do well *at once*, for there is not a day to be lost, to exercise all his influence in the matter, and set forth as tersely as possible the wrong proposed, in a letter to his own representative, and to any M.P. with which he may be acquainted. It is absurd to say the attestation *may* in practice become a mere formality. So much the worse for the argument of those who would support it. Formalities of this kind may, and probably will, degenerate into the very worst abuses, and as we value purity of election, we should protest against anything that may introduce the most shocking iniquities into the procedure.

We understand that active steps have been taken during the last few days to prevent such an anomaly being enacted. The Secretary to the senate of the University of Edinburgh has sent a letter to the Scotch M.P.'s, and others deeply interested in the Universities have added their condemnation of the proposal in influential quarters.

Notes on Current Topics.

The Public Health.

THE deaths in London in the twenty-second week of the year were 77 below the estimate, so that the health of the metropolis continues to present a favourable appearance. Measles and small-pox both prevail at Sheffield, and the death-rate of that town for the last three weeks has been 30. It had only been 23 in the first quarter of the year.

The annual rate of mortality last week was 20 per 1000 in London, 21 in Dublin, 24 in Edinburgh, and 29 in Glasgow. The other large towns varied from 19 to 31, which was the rate at Sheffield.

The deaths in London were 1217. Of these 295 were due to zymotic diseases—the average of that class being 308. Dr. Frankland reports that the water supplied by the various companies in May, contained from 24 to 41 tons of solid foreign matters in 100,000 tons.

University of Glasgow.

THE Senate of this University, some of our readers may recollect, appointed a committee to consider the reports of the Royal Commissioners on Education, so far as they concerned elementary schools in relation to universities. This committee has issued a lengthy report, touching on all the questions involved. The committee seems to have been at great pains to collect trustworthy information. It even circulated a series of printed questions among the university students of all the faculties, in order to ascertain the schools frequented prior to entering the classes. From the answers returned, it appears that out of 898 students, no less than 371 had obtained all their previous instruction at the elementary schools, while 206 others had partially availed themselves of these schools. At the middle-class schools 236 had received their education.

Only 85 had been educated out of Scotland or at private schools. Besides this, it was further discovered that a considerable proportion of the teachers amongst the students had attended the elementary schools; some of these had been pupil-teachers; others, and not a small proportion, only had found it no easy matter to contrive to gain their University education.

Looking at these statistics we are not surprised to find that the Committee would deprecate any system that would tend to lower the education of the elementary schools. They hold that it would be unwise to introduce any system of training masters that would increase the difficulty of attending at a University. It should rather, they seem to think, be the object to afford greater facilities for University education. It will no doubt be generally believed that any change that may be proposed ought, if not to enforce, at least to encourage attendance on the classes in the University.

The Committee express unqualified condemnation of the idea that the State should only pay for the most elementary education, but it is more doubtful whether on this point their opinion will be as readily trusted; as petitions are to be presented to Parliament we shall not improbably recur to the subject. Meantime we may remark that the present system has sent a large number of young men to the Universities, and has, consequently, a high claim on the consideration of all. That consideration will, no doubt, be given. We conclude by mentioning that the Committee urges that "it is by raising the qualifications, the pay, and the social position of teachers that the interests of education are really and surely to be advanced, and not by screwing down the teacher to a hard mechanical system, and jealously withholding from him a portion of his inadequate remuneration on the slightest apparent symptom of a failure of duty."

Winter at Mentone.

A CORRESPONDENT of the *Times* has revealed some of his sufferings last winter at Mentone, and the great journal has devoted a leader to denounce the filth and the extortions to which unfortunate invalids in search of pure air and a warm climate are too frequently subjected. We have a very vivid recollection of these evils, and have often wondered how patients can put up with them—still

more how doctors who have seen and smelt the abominations of foreign health resorts can refrain from bitter invectives about them. When Mentone was rising into favour, we leaned over a wall to look down upon some water, and inhaled —— well, we will not attempt to describe the sickening smell of the gases that at once prostrated us. We have since been farther, and seen things as bad—and smelt them too. There is no reason why Englishmen able and willing to pay for decent accommodation should, year after year, inhabit pestiferous dwellings, paying for them extortionate prices. There are plenty of spots much better in every point of view than Mentone, which has been advertised up to its present popularity by one or two enterprising persons, whose descriptions ought to be received *cum grano salis*. We think it the duty of those who really believe in the virtues of this climate, to lend their help to their suffering friends to deliver them from its incidental dangers. This help is not given by extolling the advantages and ignoring the disadvantages of the place.

Havre Maritime Exhibition.

This institution has been formally opened, although at present it is far from complete. The space occupied is no less than twenty acres, and the building is elegant. Havre is a pleasant place to visit: the town is tidy, the buildings good, the scenery picturesque. Apart from the exhibition, an autumn visit would be likely to satisfy English travellers more than half the French towns more frequently brought under notice, so that this year, with its maritime exhibition, it may surely count on an influx of British tourists.

The most striking attraction will, we expect, be the monster aquarium, the largest of the kind ever built, where all sorts of creatures whose home is the sea, disport themselves in their native element, pumped up by steam-engines working day and night.

The Medical Congress is as yet but an embryo, and there seems some doubt if it will grow.

Professor Humphry and the Royal College of Surgeons of England.

We have now to add to the list of candidates for a seat in the Council the name of Professor G. M. Humphry, of Cambridge. The name is familiar enough to our readers, and will, no doubt, attract considerable support. The claims of Prof. Humphry as a leading scientific investigator, surgeon, and teacher, require no comment. Many provincial Fellows will, no doubt, vote for him, as a representative of the provinces, and we shall not be surprised if at this late period he should obtain a seat.

Parasitic Diseases.

The theory of epidemic disease which proceeds on the supposition of the propagation of a fungus, will receive elucidation at the hands of Dr. Thudicum, who is about to read a communication at the Microscopic Society of King's College on the subject this evening.

Licensed Detention of Lunatics.

By the decision of five judges in an appeal case, a highly important point in reference to the reception of lunatics in unlicensed houses has been decided. A person named Shaw had been convicted of taking charge of an imbecile and paralytic patient, of fifty-five years of age, whom he had grossly neglected. The question was whether the patient was a lunatic within the meaning of the Act, he being inoffensive and suffered to be at large. The Court unanimously declared that unsoundness of mind in any form, such as renders special care essential, comes under the provisions of the Act.

A New Extract of Liebig's Food.

No doubt every medical man who is called upon frequently to treat the diseases of hand-reared children has already tried Liebig's food, and probably has, like ourselves, more than once been disappointed with the preparation supplied under that name. And yet the physiologist will not thereby have lost all faith in Liebig. He will observe that the process requires very nice management. The microscope may have shown to any one determined to trace the cause of failure, that in some cases the husks have not been removed from the malt. We have ourselves seen specimens in which Liebig's process had not been properly followed. Some persons have sold various starchy foods under the shadow of the great chemist's name. But all these cases do not affect the value of the process, and the only one worth our notice here is that in which the process, honestly followed, has not been conducted with sufficient nicety.

Since 1845, when Mialhe announced his discovery of the reduction of starch by means of diastase, medical men have directed their attention to the first process of digestion, as effected by the saliva. It has, however, been pointed out by Mialhe himself that infants of tender age can scarcely digest starchy foods at all, and if biscuits have proved more easily digested, it is because a portion of the amylaceous matter has been transformed during the cooking into dextrine or glucose, just as it is changed by the diastase of the saliva in mastication. Now, Liebig's process ought thus to change the starch into dextrine, and when carefully carried out it will do so.

In noticing a pamphlet last year we announced that a company had been formed for the supply of Liebig's food in a liquid form. The difficulties and inconveniences of this plan may be readily imagined. We are, therefore, glad to state that a few months ago we found that Mr. Mellin had obtained by very carefully evaporating the liquid, a solid extract which would keep for any length of time. We have waited for this time to make a further trial of it, and can report strongly in its favour. As prepared for sale, it is a brownish, coarse powder, exceedingly soluble in water; in fact, almost deliquescent, so that it requires to be kept in stoppered bottles (in which it is supplied). It has an agreeable sweetish taste, and only has to be dissolved in warm milk and water, an operation lasting only one minute, to produce a fluid closely approximating to human milk. We have carefully tested samples of it, and have found that the flour has really been transformed into dextrine. The greatest value of this extract is that it will keep for any length of time in any climate. India will probably be a large consumer. It is a preparation which medical men ought to examine.

Irish Coroner's Law.

We are sorry to be compelled to illustrate the observations which we made lately on the complete inefficiency of the inquest system in Ireland at the expense of a medical man, but in a public cause individual considerations must stand aside. We declared our belief that in the majority of instances Irish coroners' juries (and we have no reason to

believe that they are worse than English) are so utterly incapacitated by want of education from forming a clear judgment that their interference with the dictation of the verdict by the coroner is almost certainly for the worse. *Exempli gratia.* A man is killed under the most obscure and suspicious circumstances, as alleged by an accidental fall from his horse, at one o'clock in the morning, on a deserted road, and in company with a person who had been heard using threatening language to him. The *Irish Times* informs us that on the next day (Sunday) an inquest was held before Dr. Carter, one of the coroners for the county Kildare, at which inquest the father of Mr. Allen (the person who had been in the deceased's company at the time of his death) was foreman, and it is alleged that the only evidence adduced was that of Mr. Allen's son, which was not taken before the jury, but in an adjoining room, and then brought in and read to them, and asked was not their verdict "Accidental death," which they returned. So passed over the first inquest, and when the facts became known the matter was represented to the Castle authorities, who sent an order to have the body exhumed, a post-mortem examination made, and this inquiry instituted. If this statement be true, it, in itself, is demuratory of the system under which such legal "cooking" is possible. In any case a system under which juries are found to permit such a gross abuse can inspire no confidence.

Superannuation of Poor-law Medical Officers in Ireland.

The Local Officers' Superannuation Bill of Sir Colman O'Loghlen, in which the hopes of the Dispensary and Union Medical Officers of Ireland is, as regards their long-looked-for retiring allowances, centred, has been amended by the Honourable Baronet, by the introduction of the Boards of Guardians in the list of those bodies which, should the bill become law, will be empowered to grant pensions to aged or infirm officers. In making this addition to his bill, Sir Colman O'Loghlen has promptly responded to the representations of the profession in Ireland, and it remains for our brethren to ensure for the Bill, and more especially for this addition, the hearty support of the Members of the House. We most earnestly urge upon our readers that fortune has now placed at their feet not only the occasion, but the most favourable moment for exercising their just influence on the House of Commons. If they lay before their local representatives the arguments which have been so often urged in favour of the demand, and second their request by an explicit declaration of their intentions as to the approaching election, reason and policy will forcibly enforce their representations.

Elephant Hunting.

We remarked a week or two since on the wonderful story told by the *Pall Mall Gazette* respecting the exploits of a surgeon with the Abyssinian force, which were to be equalled only by the great Baron Munchausen.

The origin of the story is now said to be a hoax, and our contemporary thus writes:—

"We now learn from a correspondent at Zoulla that the account in question was read, when our paper arrived there, with shouts of laughter, the hero of the adventure being by no means a sporting prophet among his own comrades, and being notoriously afflicted with a disease not uncommon among African explorers, known as 'elephantiasis of the imagination.' The letter from Zoulla declares that the only elephant the sportsman had to deal with was a commissariat animal, and that the gesticulations and shouts of the natives, uttered in a tongue which he did not understand, were merely earnest remonstrances against firing at that inoffensive and useful animal, which, however, escaped all injury."—*Pall Mall Gazette.*

Testimonials to medical men seem to be rather frequent just now. We hear it is proposed that on his retirement from the office of Physician to Charing-cross Hospital, Dr. Chowne shall be presented with a substantial proof that his long and valuable services have met with the appreciation of the governors and friends of the hospital.

In the House of Commons on Thursday last a petition was presented by the Chancellor of the Exchequer, from physicians, surgeons, and others connected with the science and practice of medicine in and around London in favour of the Electric Telegraph Bill.

Foreign Medical Literature.

ON THE COMPARATIVE ACTION OF VARIOUS DISINFECTING AGENTS,

WITH REFERENCE TO THE PURIFICATION OF SHIPS' BILGES.

By Dr. BERENGER-FERAUD,

SURGEON IN THE FRENCH IMPERIAL NAVY.[1]

All seamen, and indeed most persons who have past any considerable length of time on board ship, know how disagreeable are the effluvia which arise from the bilges. Naval medical men have constant opportunities of observing the troublesome, and occasionally dangerous, effects on the health, of such emanations. I need not, consequently, enlarge on the utility of researches on this subject.

My first experiments on the means of purifying ships' holds were undertaken a good many years ago. I incidentally made allusion to them in my inaugural thesis of 1860. In the autumn of 1863, and the following spring, I resumed the inquiry on board the Imperial yacht "Jerome Napoleon," to which I had been appointed surgeon, and instituted comparative trials of the disinfecting action of various agents. The substances on which I experimented were—wood charcoal, chlorine, chloride of lime, carbolic acid, proto-sulphate of iron, and permanganate of potash.

The "Jerome Napoleon" is a wooden screw-steamer of 200 horse-power, which was launched in 1860, from one of the Channel dockyards. Built on very fine lines, her bilges, fore and aft, are very confined and difficult of access. The relatively large quantities of stores which she is required to carry when at sea, causes every foot of available space to be occupied, and the accommodation for passengers and crew to be inconveniently curtailed. She had not been long cleared out of dock, and anchored ready for sailing, when a wind on shore, which caused some rolling, gave rise to a most disagreeable odour of bilge water, which, on the deck occupied by the crew, was almost insupportable. With the object of overcoming this nuisance, I undertook the experiments of which the following is a short account:—

1. *Wood Charcoal.*—On a day when the smell was very offensive, I placed in the lowermost part of the bilges ten thin pack-sheet sacks, containing each twelve pounds of charcoal. Not the smallest diminution of odour was perceptible. This experiment was several times repeated, but on each occasion gave the same negative result. Thereupon, I put a quart of the stinking bilge-water into a pail, and gradually added charcoal, carefully watching the effect. No sensible decrease of smell was noticed, till sufficient charcoal had been introduced to rise four inches above the surface of the bilge-water in the pail, and the whole had been kept in that state several hours. To produce any disinfecting effect, from six to eight quarts of charcoal to one of foul bilge-water were necessary, and even then the success was very doubtful. When the laudations that have been bestowed on charcoal as a disinfectant are re-

[1] Translated for The Medical Press and Circular, from *Archives de Médecine Navale*, the organ of the French naval medical service, edited by Dr. Le Roy de Méricourt, Professor of the School of Naval Medicine.

membered, its inefficiency in the above circumstances appears somewhat remarkable.[1] The enormous quantity which would be required to produce any result, even if that result were more complete, renders the use of charcoal utterly impracticable.

2. *Chlorine and Chloride of Lime.*—Abundant fumigations with chlorine had only the effect of modifying the smell, and of producing a compound odour as offensive as the one complained of. Moreover, the 'tween-decks were rendered almost uninhabitable for the time, and the air in the hold totally unfit for respiration. No better effect was obtained from chloride of lime, neither when thrown into the bilges, nor when exposed in dishes placed in the hold.

Thus, as a remedy for the smell from bilge-water, both chlorine and chloride of lime completely failed in my hands. But their injurious action on the engine and other metallic objects on board was not long in becoming apparent. I had an opportunity of observing what it would be under the prolonged exhalation of chlorous gases, from having left during a month an open jar of chloride of lime in one of the cabins of the "Jerome Napoleon." All the locks and keys, and every thing composed of metal were seriously injured, and even the bolts and fastenings of the vessel inside the cabin were, to some extent, attacked.

3. *Carbolic Acid.*—This substance was tried on the faith of the assertions contained in the work of Dr. Lemaire, of Caen. But its own odour is so offensive that I did not venture to experiment with it on the large scale. I added a couple of drams of pure carbolic acid to a quart of bilge water. The original fetid odour disappeared; but whether it was destroyed or only overpowered and masked, by combination with the smell of the agent used, could not be determined.

Having repeated this experiment several times, I am inclined to think that the power of carbolic acid to remove the odour of bilge-water is very feeble; for I found that a piece of silver plunged into that fluid, after treatment with carbolic acid, was quite as much blackened by it as by the bilge-water to which no carbolic acid had been added. The odour peculiar to carbolic acid is so penetrating and disagreeable, as to have prevented me using it in the bilges of the "Jerome Napoleon." I feel satisfied, however, that those who may venture to try it in the bilges, will find that this substance only substitutes for the smell which they emit, another equally offensive, if not perhaps so injurious to health.

4. *Protosulphate of Iron.*—One ounce of this substance in crystals, added to eight ounces of bilge-water removed the offensive smell in an hour and a-half. One pound placed in a bucket containing two gallons of foul bilge-water, gave the same result after four hours. These experiments are similar to some which have been published by Dr. Forné, of the Imperial Navy; but it is curious that whereas mine appeared to me to be successful, those made by him on board a vessel of the Mexican Squadron seemed to give negative results. I have tried to account for this difference, and have conceived it to arise from the circumstance that, in the latter case, sufficient length of time was not allowed for the action of the protosulphate, or else that the solution used was not recent enough.

In my experiments I employed the protosulphate in crystals instead of in solution, and I am inclined to think that when the bilge-water to be disinfected is in considerable quantity, crystals ought to be preferred. In fact, protosulphate of iron, soon after being dissolved, undergoes reduction by oxidation, which diminishes its disinfecting power. I tried the effects of a recently made solution composed of three ounces of crystals to eight ounces of water, and then of a solution of the same strength which had been kept some time. The former, which was of a greenish colour, acted powerfully on fetid bilge-water, whereas the latter, which at the end of a week, had become reddish in colour, and had thrown down a precipitate like brick-dust, exerted no sensible action.

It is my opinion, then, that in practice, the crystals of protosulphate of iron ought to be placed in the bilges without being previously dissolved, and a freshly made solution used for washing down the boards and wood-work.

5. *Permanganate of potash.*—I now come to the last of the disinfectants tried by me, and I may add, the best. The powerful action of this substance on the odours exhaled by suppurating surfaces is, at present, well-known. The medical journals, and in particular the *Gazette des Hopitaux*, and the *Bulletin Général de Thérapeutique*, have called attention so emphatically to this point, as to give rise to very great expectations from this new agent.[1] For my own part, I had seen in the hospital practice of several of the Paris surgeons, and particularly in that of Dr. Demarquay, as well as in my own, such admirable results from its disinfecting action on wounds, as to cause me to think that it might be found of great use for the purification of ships' bilges.

I made use of a solution of permanganate of potash, of the strength of half an ounce of crystals to a quart of water. One ounce and a-half of this solution, which has a fine crimson colour, added to a pint of foul bilge-water, effectually removed all bad odour in three minutes, with change of colour to a dirty greyish brown. Five ounces of solution in four quarts of stinking bilge-water produced the same result. Two quarts of solution sufficed to destroy rapidly the bad smell of the after-bilges of the "Jerome Napoleon."

The purifying action of permanganate of potash is so remarkable, that its success in the disinfection of putrid matters of every kind may safely be assumed. I have derived the greatest advantage from its use for many other sanitary purposes besides those just mentioned. It not only effectually destroys the foul odours arising from suppurations, and from putrefying and fecal matters, but it acts likewise on many other odorous substances. I will cite a curious fact in confirmation of this. Having one day inadvertently imbued my hands with a concentrated solution of carbolic acid, I could not rid myself of the penetrating and offensive smell. Repeated washings with soap, followed by applications of vinegar, chloride of lime and ammonia, failed to remove the odour. Being on the point of attending a consultation to which I was very reluctant to carry so nasty a smell, I was in despair. The idea came into my head to dip my fingers in permanganate solution. The first application caused a notable diminution of the carbolical odour; after the third it had entirely gone. Struck with the result, I afterwards repeated the experiment, which each time succeeded perfectly. This fact cannot fail to prove useful to those who may have dissections and post-mortems to make.

I am satisfied that all those of my fellow-medical officers who shall repeat my experiments on board their ships, will obtain the same good results from permanganate of potash. But there is, unfortunately, against this valuable agent a somewhat serious objection, which may for some considerable time impede its general use: its commercial price is excessively high. There can, however, be little doubt that, when it shall have become an article of current sale, and an industrial instead of a laboratory product, the price will rapidly diminish.[2] At all events, the present high price of permanganate of potash need not, even now, prevent its employment with great advantage in a considerable number of cases, because of the superior rapidity and efficacy of its action.

CONCLUSIONS:

1. Wood charcoal is radically inefficient and inapplicable.
2. Chlorine and chloride of lime are hurtful as well as inefficient.
3. Carbolic acid is of no use, and has an insupportable odour.
4. Protosulphate of iron may for the present be preferred; it is sufficiently active to be of considerable use, and very low in price.
5. Permanganate of potash is infinitely superior to all the preceding substances, and is destined to put them all into the shade so soon as it can be sold at a figure permitting its use on the large scale. Even its present price is no bar to its employment, when it is necessary rapidly and completely to purify a ship's fetid bilges.

1 It is now well-known that wood charcoal has little or no disinfecting action when immersed in liquids. In the air it has the power, in common with many other porous bodies, of neutralising certain gaseous products of decomposition, by reason of the condensed oxygen which, in those circumstances, it contains. This is why, in the above experiment, it produced no effect until sufficient had been added to rise above the surface of the liquid.—Tr.

1 The very earliest notice contained in any Fench medical writing of the disinfecting properties of permanganate of potash, appeared in the *Gazette des Hôpitaux* of the 4th October, 1862, and was occasioned by the remarkable success of the experiments made by Dr. Demarquay at the *Maison Municipale de Santé*, in consequence of the good effects which that gentleman had witnessed at the London hospitals, when he was in this country during the International Exhibition of 1862. At that time the discovery of the disinfecting properties of the alkaline permanganates had already been more than six years before the English public, and there had been read at the *Académie de Médecine* of Paris the year previous, namely, on the 17th September, 1861, a memoir on the subject, by Mr. Condy, the author of that discovery. The latter was the very first occasion on which this matter had ever been publicly spoken of in France.—Tr.

2 This is precisely what has taken place in this country, thanks to the enterprise of Mr. Condy, who has been enabled to apply to its manufacture on the large scale, economical methods which are out of place in the laboratory. At the date of his patent, permanganate of potash could not be sold under 80s. per pound; the price now of a pint of concentrated solution is 1s.—Tr.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE twenty-sixth annual meeting of this Society was held on Monday, June 1, at the King and Queen's College of Physicians, Kildare-street.

Dr. CHURCHILL, President, in the Chair.

Amongst those present were:—

Sir Dominic Corrigan, Drs. Thornhill, Chaplin (Kildare), Mackesy (Waterford), White, Porter, Molony (Tulla), Morrogh, Fitzpatrick, Duke, Gordon, Hardy, Churchill, Beatty, Johnson (Kilkenny), Irvine, Duncan, Daly, Mollan, Little, Croker, M'Clelland, M'Clintock, Pollock, Hardy, Benson, Benson, jun., Grimshaw, Maguire, Darley, Eustace, Stewart (Lucan), Guinness, Nugent (Drogheda), Martin Portlaw), Hamerton (Navan), Jacob (Maryborough), Battersby, Bradshaw (Bansha), Kennedy, Holland, Law, Hynes (Kinvara), James F. Duncan, W. Moore, Adams, Wharton, Dwyer, Athill, Osbrey, Quinan, Edward Hamilton, Robert M'Donnell, William Stokes, Speedy, Coulton, Sibthorpe, Brady, Hanrahan (Montrath), Willis, Barton, Morrisey (Tipperary), Hargrave, Byrne, Hatchell, Cronyn.

The CHAIRMAN said:—

Gentlemen,—It is with great pleasure that I welcome you to the College of Physicians, on this the twenty-sixth anniversary of the Royal Medical Benevolent Fund Society, and I need hardly add, that I feel it a great honour to preside at it.

I shall not detain you long by any preliminary remarks, but having for many years taken a deep interest in the Society, and watched its working, I am anxious to say a few plain words upon its present condition.

The object of your Society is laid down so broadly and clearly in the motto on the title-page of our reports, that I cannot do better than quote it:—"If there be among you a poor man of one of thy brethren, within any of thy gates, in the land which the Lord thy God giveth thee; thou shalt not harden thy heart, nor shut thine hand from thy poor brother; but thou shall open thine hand wide unto him, and shalt surely lend him sufficient for his need, in that which he wanteth."

If any one is ignorant how thoroughly the recipients of your bounty are described by the first part of this verse, a glance at the book on the table will satisfy him at once. He will find there the records of medical men, our brethren, accustomed to the comforts, and some to the luxuries and refinements of life, arrested by illness or other casualty, and dependant for a great part of their means of living upon the allowance you give them. He will find also, the widows and children of medical men, reduced by their death to utter destitution, and thankful even for the mite we are able to afford them. These are they whose needs appeal most earnestly, most urgently to your liberality. Eighty-one of them, our brethren, are on our list for this year.

Gentlemen, you little know how sad a task is laid upon your Council to examine into all these sorrowful claims, and to contrive, not, alas, how liberally "with an open hand," we can contribute to their necessities, but how we can pare down each sum to the lowest point, so as to give each a little, and yet keep out of debt.

Although no one will dispute the principle that we ought to help our less fortunate brethren and sisters, yet, strange to say, our practice has not as yet kept pace with it.

There are about 2000 medical men in Ireland, and only about 480 are subscribers to our Society.

After twenty-six years of strenuous effort on the part of your Council and local Committees, the subscriptions (not including the interest upon donations) only amount to about £350.

Why, if each practitioner in Ireland gave only 5s. a-year (and many give very much more) we should have £500 per annum, but calculating the subscriptions of those who give more, I suppose our receipts would be £800 per annum, which, with the addition of the interest upon our funded property, would enable us to relieve a larger number of applicants, or to give more adequate relief to the present recipients.

I confess I do not find it easy to understand this withholding of help by men whose daily ministrations are, to a large extent, works of charity. Did any one ever know a medical man refuse his services to a poor man because he had not wherewith to pay for it? Do not our brethren give their time, their labour, their skill, aye, and often their money, to the poor and afflicted?

Why, then, should they hesitate to devote a little of their means to help those who, in a double sense, are their brethren, and who have thus a twofold claim, upon whom affliction and destitution have fallen. One would think that the sight of a brother practitioner, incapacitated from earning a living; or of his widow and orphans left to the cold mercies of the world, would appeal to the compassion of every one; or if not, would at least remind us that as they are, so we and ours may be if God so will. No doubt the larger number of our profession do not abound in wealth, and to expect much from many of them would be very unreasonable, but we do not ask much; we ask ever so little, only let there be something from all, that all may share in this good and charitable work.

I have more than once heard it assigned as a reason for not assisting us, that the subscribers to the fund gain thereby no benefit to themselves or their families. Certainly not in the way they mean, because this is not an insurance society, but in a modified sense it is not quite true. No subscription gives a legal claim to an annuity; but in cases of necessity the moral claim based on previous subscription is never ignored, and among the recipients of your bounty there are several who have been more liberally dealt with in consequence of having been subscribers; just as there are others mainly dependent upon you, who never dreamt that they or theirs could ever need help.

Thus you see, to take the lowest ground, a subscription is not necessarily thrown away.

But surely, gentlemen, whether we derive benefit to ourselves in this way or not, there are other ways in which we gain personally and collectively.

That "charity is twice blessed," is a truth of such universal experience, that it has passed into a proverb. It "blesses him that gives as well as him who receives." There is nothing which gives such influence to a medical man as the power of sympathizing, and nothing confers this like doing good to others. Nothing keeps the heart and feelings so fresh amid the wear and tear of professional life; nothing which gives greater satisfaction under disappointments, and nothing which adds a greater zest to the successes of our career.

"Doing good, hoping for nothing again," ennobles that character of whom it is a noble trait. It is following in His footsteps "who went about doing good," and who declared of the service of charity—"Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

Neither does our Profession gain less collectively by supporting liberally such a Society as this. Most of you, I dare say, have this day attended the meeting of an excellent society (the Irish Medical Association), whose object is to promote union and united action on the part of the whole Profession. A most admirable object, and one, I take the liberty of saying, which is not less promoted by our Society. Depend upon it, united effort on behalf of the suffering, the destitute, and the helpless, is a great bond of union among the helpers.

Almost co-extensive with the efforts we make to help each other will be the growth of the feeling of brotherhood and the strength of the tie which binds us together.

The union—and, if I may use the phrase, the cohesion—resulting from beneficent action will be found to resist a greater strain than union for most other purposes.

In conclusion, gentlemen, I do earnestly trust that we shall all exert ourselves to increase the number of our

members, whether their subscriptions be small or great, and that the result next year will bear a noble evidence of your success. Not for gain, but for charity; not for reward, but because "to him that knoweth to do good, and doeth it not, to him it is sin."

Dr. M'Clintock then read the Annual Report, which, although in type, we are compelled to hold over.

Sir Dominic Corrigan, Bart., moved that the report and statement of accounts be adopted, and that 1500 copies be printed for circulation. He said he heard with great pleasure that the trustees had not availed themselves of the power given to them at the last meeting of transferring stock to the amount of £13,000 from Government securities to some other securities; and he wished to avail himself of the opportunity now afforded him of expressing the gratification he felt at the course pursued by the trustees, and to hope that they would not transfer their stock to any other than Government Stock. All other undertakings were liable to contingencies, if not of failure at least of delay; and although they might get from one to two per cent. more interest on other securities, there might be delay in payment from any other fund. They should keep their funds where they now were. This was not an assurance society, but one that called on the members to contribute each according to his means. Sir Dominic Corrigan then concluded by proposing the resolution.

Dr. Mackesy seconded the motion, and expressed his regret at learning from the report that so much apathy was shown on the part of many members of the profession towards the objects of the society. He would have been better pleased, he said, to find this institution supported by a large number of names, although the individual subscriptions were small, than by a small number of names amounting to large subscriptions. He urged that the profession should warmly support the society, and, amidst applause, added ten pounds to the ninety pounds which he had previously subscribed to the society.

Dr. Benson suggested that a paragraph should be added to the report stating that the Society were gratified to find that the portrait of Dr. Kingsley, the founder of the society, had been given its proper place in the College of Surgeons.

Sir Dominic Corrigan, as the mover of the resolution for the adoption of the report, and Dr. Mackesy as the seconder, said they had great pleasure in adopting the suggestion of Dr. Benson, and the council concurring,

The Chairman put the motion for the adoption of the report with Dr. Benson's paragraph added.

The motion was carried unanimously.

Dr. Porter, President of the College of Surgeons, said he was pleased that his first act in his official position since his appointment was to come forward to advocate the claims of the Society by moving that the meeting desired to express its warm thanks to the various provincial branches of the association, and to the Hon. Sec. and Treasurers for their continued zeal in promoting the objects of the Society.

Dr. Beatty seconded the motion, and suggested that, in order to secure a better support for their funds in future, and as a means of guarding against the apathy heretofore exhibited, a gentleman should be appointed to solicit subscriptions in each locality.

Dr. Benson was of opinion that the hon. secretaries and treasurers of the parent society should also be thanked for the zeal and efficiency with which they had performed their offices, and the readiness and punctuality with which they rendered invaluable services.

The suggestion was adopted, and the resolution was then passed unanimously.

Dr. Morrogh proposed the thanks of the meeting to the Press.

Dr. Martin, Portlaw, seconded the motion, which was also adopted.

The President of the College of Surgeons having been called to the second chair,

On the motion of Dr. Molony, seconded by Dr. Fitzpatrick, the thanks of the meeting were passed to the President.——The meeting then terminated.

Correspondence.

THE MEDICO-POLITICAL ASSOCIATION AND MEDICAL REFORM.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—In reply to Dr. Drysdale's letter of the 27th ult., I beg to say that I think several of his suggestions very good. Before I saw his letter I had thought over most of them, and written on the subject to some of the executive officers of our Association.

I can assure him that no endeavour of mine shall be wanting to bring the subject matter of his communication before our Association, which, I trust, will soon number Dr. Drysdale among its members.

My notion is that the Medical Council should represent the body of the profession directly as well as indirectly, through the universities and corporations.

That the Medical Council should have power to exercise a larger amount of control in making the degree of M.D., one not easy of attainment, and that it should be a sufficient guarantee that who ever holds such degrees from a British University, has received a complete medical and general education.

The same remarks apply to the degrees of Bachelor and Master in Surgery.

A similar power should be exercised over the Colleges of Physicians and Surgeons, so that these bodies should not have the option of creating new qualifications just as they please, and that their Fellowships should become *real* marks of distinction.

I would suggest that a Central Board of Examiners be appointed from the present examining bodies, for each division of the United Kingdom, that every person entering the profession should be examined by this Board, their general educational attainments having been previously tested by an examining body appointed in the same manner. That the passing the medical examination above-mentioned should entitle the holder of its license or diploma to practise as a general practitioner, and confer upon him the designation of Physician-Surgeon or Surgeon-Physician, but not that of Doctor either by right or courtesy.

I also advocate Dr. Drysdale's suggestion No. 2, that Poor-law Medical Officers should be paid a sufficient salary to enable them to devote their whole time to the duties, but in addition that they should not be called on to find drugs or appliances, that their appointment or dismissal should not rest with Boards of Guardians, and that they should have a seat at these Boards.

That the appointment to all public medical situations be made by open competition, has my full support, for I consider the present system of gross nepotism which exists in connection with, as well as the degrading system of canvassing for public appointments, to be a disgrace to the country and our profession.

To prove that some control should be exercised over the Corporations in regard to their examinations, I have only to point out the recent examination for the Fellowship of the College of Surgeons. To make matters easy the examination has been divided into two. Fifty-three passed the first in Anatomy and Physiology, a week or so since. I quite agree with a medical contemporary that the papers were such as any first year's man could have answered well.

Now, sir, the Fellowship of the College of Surgeons has already dwindled down to a very low value, for it has become quite common, inasmuch as for several years it has been sold to all-comers for ten guineas, and now one can easily see that the College intends that it should be equally or nearly as easy of acquirement for the future, in fact, an almost £ s. d. arrangement. For my own part I am rather ashamed of being a F.R.C.S.

Trusting that you will not consider this letter too long for insertion, and promising not to trespass at such length again, I remain, &c.,

R. P. B. Taaffe, M.D., M.S.Lond.

Brighton, June 5, 1868.

"THE PHARMACY ACT, 1868."

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—In your impression of last week I noticed a paragraph on Lord Granville's Bill respecting chemists and druggists.

Being interested in the matter, I should esteem it a favour if you would inform me, through the medium of your valuable journal, whether the said Bill will contain any clause preventing grocers retailing drugs, and if not, what particular advantage will it secure to chemists, and what advantages will accrue for the expenditure of time and money in passing the Pharmaceutical Society, as the generality of grocers now deal in drugs. Any further information on the subject which you could, in fairness to the body of your readers, furnish, would be esteemed by, sir, yours truly, J. E. WILLAN, M.D.

Haxey, Nr. Bawtry.

[THE first section of the Bill provides—

"From and after the 31st day of December, 1868, it shall be unlawful for ANY person to keep open shop for retailing, dispensing, or compounding poisons, or to assume or use the title 'chemist and druggist,' or chemist or druggist, in *any* part of Great Britain, unless such person shall be a pharmaceutical chemist, or a chemist and druggist within the meaning of this Act."

And again, section three—

"Chemists and druggists within the meaning of this Act shall consist of all persons who, at any time heretofore, have carried on, in Great Britain, the business of a chemist and druggist, in the keeping of open shop for the compounding of the prescriptions of duly-qualified medical practitioners, also of all assistants and associates duly registered under or according to the provisions of the Pharmacy Act, and also of all such persons as may be duly registered under this Act."

The Bill, which is to be cited the "Pharmacy Act, 1868," is too long to be given *in extenso* in our columns; but the above quotations will probably answer the purpose of our correspondent.—ED. M. P. & C.]

Medical News.

CANCER HOSPITAL (LONDON AND BROMPTON).—At the annual general meeting of the governors of this hospital held on Friday last, it was stated that during the year new plans of treatment, both local and general, had been employed with highly beneficial results. The patients were now seen five times a week, instead of four as formerly. The financial statement showed that the legacies during the year had amounted to nearly £10,000; the receipts from all sources had amounted to £14,564, 10s. 9d.; the total expenditure had amounted to £5175, 7s. 11d., and there was a balance in the hands of the bankers of £1600. The report and accounts, which were considered eminently satisfactory, were unanimously adopted. The chairman remarked on the very gratifying position the hospital was placed by the legacies received during the year, showing that the public recognized the extremely valuable nature of the charity, which was designed for the relief of one of the most distressing maladies to which human nature was liable. The proceedings then closed in the usual manner.

UNIVERSITY OF EDINBURGH.—THE VACANT CHANCELLORSHIP.—A meeting of the General Committee for promoting the return of Mr. Gladstone, as Chancellor of the University of Edinburgh, was held on June 1st, Sir James Y. Simpson occupied the chair, and there was a large attendance. The Chairman, in his opening speech, referred to the steps they had taken in regard to the Chancellorship. He said that they had calmly considered as possible candidates Lord Russell, Lord Dalhousie, the Marquis of Salisbury, Lord Colonsay, the Lord Justice-General, Sir William Stirling-Maxwell, Sir Roderick Murchison and others. But the general conclusion was at last arrived at, that if they should select for the office the man of the day who was most distinguished in literature, philosophy, and other acquirements, their choice should fall upon Mr. Gladstone. In that Right Hon. gentleman, they had that combination of name, fame, power, and talent, which they require in a Chancellor. He was a distinguished author, one of the greatest scholars, greatest orators, greatest legislators, and greatest statesmen living—a man whom they all knew would one day, and that perhaps at a very early day, be Premier of England. He presented altogether a combination of gigantic claims and talents such as it was almost impossible to meet with in any other one person. Addresses were also delivered by the Rev. Sir Henry Moncrieff, the Rev. Dr. Guthrie, Professor Lyon Playfair, Dr. Alexander Wood, and others. Professor Lyon Playfair said that the first and most important objection that had been taken to Mr. Gladstone was that he was determined to reduce the four universities of Scotland to the state of colleges, and to put them into one national University. On that subject he read the following letter received from Mr. Gladstone:—"In 1858 I held an opinion, more than a year before I was chosen rector, that the value of Scottish degrees, especially those other than medical, would be enhanced if the four universities of Scotland formed themselves into one national university. But this was (see "Hansard," vol. 151, p. 740) 'presuming a willingness was found to combine in this way.' This willingness is repeated over and over again, and is the basis of the whole affair as it was then treated by me; and perhaps I may observe that the clause which I moved provided only for action, 'with the consent of such universities respectively,' so that even if three universities had desired the connection the fourth could have stopped it. This plan was approved by Lord Elcho and Mr. Dunlop, and opposed by no one. The then Lord Advocate Inglis suggested its further consideration. It was brought up again on the report of the Bill, and agreed to by him and by the whole house. The form of it had been altered, and, singularly enough, as it now stands it allows each university singly to join a national university. I have no means at this moment of accounting for the alteration of the clause with certainty, but my decided impression is that it was probably redrawn at the instance, if not under the direction of the then Lord Advocate, and thus brought into a form less favourable to the free agency of the Scottish universities, though still recognising it pretty largely. My recollection is that this proposal to empower the Scottish universities to unite was very acceptable at the time to Scotch members generally. I think this history of the nature and limits of my proposal—founded on documents accessible to all—is better than any profession I can now make. Since the date of it, the subject has been dismissed from my mind, like many others, for the simple reason that the first condition required for giving it vitality did not appear to exist. To any plan for forcing a union I should then have been, and I now am, totally opposed. You will, I hope, kindly publish this letter."

IN the Court of Queen's Bench on Thursday last—the Queen *v.* Diplock. In this case a rule had been obtained by the friends of Dr. Hardwicke, calling upon Dr. Diplock to show cause why a *quo warranto* should not issue to inquire by what authority he claimed to fill the office of coroner for West Middlesex. Mr. Gray, Q.C., and Mr. Beresford appeared for Dr. Diplock; Mr. Keane, Q.C., and Mr. Day appeared in support of the rule. Mr. Gray, without arguing the case, said he presumed the court would make the rule absolute, as the best mode of obtaining a scrutiny. The point with reference to bribery he understood was given up, but he suggested to the court whether a *quo warranto* would lie on the ground that the decision of the sheriff in a county court held purposely for the election of a coroner was final. The court were decidedly of opinion that it would, and made the rule absolute.

UNIVERSITY OF LONDON CONVOCATION.—The adjourned annual meeting of the convocation of this university was held on Tuesday, June 2, under the presidency of Dr. Storrar. Mr. W. S. Lean moved, "That it be an instruction to the annual committee, either in conjunction with the senate or separately, as may be judged most expedient, to take any steps that they may consider likely to aid in promoting the improvement of secondary education in schools; and especially to prepare and cause to be presented to both Houses of Parliament petitions praying for early legislation, having such improvement for its object; and that the chairman of convocation be authorised to sign those petitions on behalf of convocation." He urged that it was plain that schools which are thoroughly satisfactory are few in the extreme, and instanced many specific cases of the want of usefulness, and in fact of absolute abuse or alienation of important educational endowments. The latter cases were fortunately few, but the shortcomings were more numerous than desirable. The University of London, which rested entirely upon its standing in competitive examinations, had an especial interest and duty in enforcing and promoting secondary education, and the necessity of improved organization was clear.—Mr. W. Shaen seconded the resolution, strongly supporting the action and recommendations of the education commissioners, and contending that the university could not do better than give its active and cordial support to the scheme proposed by them.—Mr. Paget sup-

ported the resolution.—Mr. Hutton objected that the resolution did not express concurrence with the recommendations of the education commissioners, but embodied, in fact, an advocacy of progress without defining its direction.—The mover and seconder both agreed to a rider, to the effect that the steps to be so taken for the improvement of secondary education should be "in general accordance with the recommendations of the report of the schools inquiry commission." After discussion the resolution, as amended, was carried unanimously. Dr. P. H. Pye-Smith moved that the senate be requested to consider the expediency of discontinuing the gold medals now given at the M.D. and M.S. examinations; Dr. Broadbent seconded. After a discussion, in which it appeared that the number of medical graduates present were too few to argue the question fully, it was agreed, on the motion of Mr. Shaen, to proceed to the next motion. Dr. Taaffe moved (1.) "That in the opinion of convocation no person ought to be admitted to any degree unless he has previously studied at a college affiliated to the university," contending that this was a principle involving the real value of the university. It was no argument against this that the ancient Universities of Oxford and Cambridge were widening their doors, because the great principle was the collection of students in a common centre. He also moved (2.) "That in the opinion of convocation, middle-class examinations, similar to those of Oxford and Cambridge should be instituted in connection with the University of London, and that it be an instruction to the annual committee to take the subject into consideration." After discussion it was decided that the resolutions be put separately; and on the first resolution a tedious and lengthened controversy ensued, amidst expressions of impatience on the part of the members, as to whether such a movement was retrograde or otherwise, the mover contending amidst laughter that it was "retrograding in the right direction." The motion was almost unanimously negatived. On the second motion another lengthened discussion ensued, it being argued that there was no necessity to localise an examination which was now practically freely open; that it was unadvisable to introduce the system in London until the university had the means of guiding to some extent the schools which would produce the candidates for such examinations. In the course of the arguments the chairman stated that, in point of fact, the great advantage of the London University was that its system of proceeding to degrees earned solely by merit was in advance of the middle-class examinations. By permission of the house, Dr. Taaffe withdrew the motion. A proposal to adjourn the house, made for the third time, having been negatived, the Rev. A. Creak moved—"That the senate be requested to take steps for the establishment of courses of lectures or professorships in connection with the university." It was proposed to refer the subject to the annual committee to consider and report thereon, when a motion for adjournment was carried. Upon the resumption of the house, it was moved by Mr. B. W. Gibsone, seconded by Dr. Quain, and unanimously resolved—"That the annual committee be requested to draw up an address of congratulation to her Majesty the Queen on the escape of his Royal Highness the Duke of Edinburgh from assassination, and that the chairman be requested to sign and forward the same on behalf of convocation."

NOTICES TO CORRESPONDENTS.

Mr. RICHARD WALLACE will please receive our thanks.

J. G., Glasgow.—The point requires nice discrimination, as much depends upon the position of the party. There is no reason why medical men should attend the clergy and their families gratuitously, except it be in the case of one unbeneficed, or in charge of a very poor district. In large towns the distinction is seldom made or expected; but in small country towns and villages where the Doctor and Parson are generally found working together, it is somewhat different, and resolves itself into a question of feeling. Of course in midwifery and cases requiring operations, no clergyman would expect the medical man to go unpaid.

A CORRESPONDENT forwards us a circular, which is being sown broadcast throughout the country—of which the following is an extract—in the hope that its publication may influence the "Medical Council" shortly about to commence its sittings to adopt such measures which shall effectually stop such impostors, in their nefarious traffic on the nervous and unwary. Our readers will notice some slight deviation from the usual rule of quacks who *dub* themselves Dr. The *worthy* in the present case—whose address we have erased, modestly signs himself "Medicus."

"*Just Published, free to any address for two stamps,*

"A MEDICAL GUIDE, which contains full directions and prescriptions for the recovery of health and manhood; nervous debility, and all Private Diseases, can be cured with secrecy and safety, by following the directions in this book. Particulars are also given of a Specific for the cure of various female complaints, and Advice to Females on Important matters. Address Medicus, who may be consulted daily, in confidence. Established 30 years."

TESTIMONIAL TO DR. CHOWNE.

IT has been considered that, on the retirement of Dr. Chowne from the post of Physician to Charing-cross Hospital, he should, after his long and valuable services, receive a more substantial expression of the appreciation of his honourable and useful career than a mere vote of thanks.

It is therefore proposed that the Governors and friends of the Hospital be invited to subscribe to a fund to be raised for the purpose of presenting to him such a testimonial as may be determined upon.

Subscriptions will be received till the 1st of July, at the London Joint Stock Bank, 69, Pall-Mall, or at the Hospital.

ROBERT FEW, Treasurer.
HENRY WOOLCOTT, Hon. Sec.

THE LONDON SURGICAL HOME,

FOR Diseases and Accidents of Women; for the Reception of Gentlewomen and Females of respectability, upon a weekly payment, under the sole management of Mr. BAKER BROWN.

The Private Medical Attendants of the patients are invited to visit them, and to meet in consultation before treatment.

Full particulars can be obtained on application to the LADY SUPERINTENDENT, 18, Stanley-terrace, Notting-hill, London, W.; or to Mr. BAKER BROWN, 136, Harley-street, London, W.

30th November, 1867.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, MANCHESTER.

WANTED an ASSISTANT MEDICAL OFFICER to the Dispensary Department, whose principal occupation is the visiting of the home patients. Salary £120. Qualifications and Testimonials to be addressed to the Hospital not later than the 22nd of June.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

—Founded 1788.—Incorporated by Royal Charter, 1864.—The Members are reminded that a QUARTERLY COURT of DIRECTORS will be held on the 8th JULY next, at which Candidates for admission into the Society can be proposed. It is desirable that the Forms of Proposal be filled up and forwarded to the Secretary at least a week before the meeting. The Forms of Proposal may be obtained of the Secretary. The benefits of the Society are restricted to the families of deceased members of not less than two years' standing. The Secretary attends at the Office every Wednesday and Friday from Four to Five o'clock.

J. B. BLACKETT, Secretary.

53, Berners-street, W., June 1, 1868.

LONDON NURSES' INSTITUTE,
42, South Audley-street, Grosvenor-square, W.

TRAINED NURSES (Medical, Surgical, Mental, and Monthly), can at all times be obtained from this Institute.

Hospital Appointments by special arrangement.

Letters and Telegrams should convey the nature of the case to be attended,

Apply to the Manager or Matron. T. HAMILTON, Manager.

THE MEDICAL PROFESSION.

THE ALBERT LIFE ASSURANCE COMPANY. Established 1838—Annual Income £350,000, accepting healthy and invalid lives, is prepared to enter into special and liberal arrangements with members of the Medical Profession acting as private Agents of the Company.—Apply to the Secretary, FRANK EASUM, at the Chief Office, 7 Waterloo-place, Pall-Mall, London.

EXPORT OF THE CARLSBAD NATURAL MINERAL WATERS.

The wonderful natural properties of the Mineral Waters of Carlsbad are too well known to require commendation; they are a fact proved by the experience of many centuries. The waters can be used in the same way at home as at the Spring. The usual dose is One Bottle of Mineral Water each morning, taken at intervals of twenty minutes, either cold or warm, and after open-air exercise if practicable, or at home and in bed if necessary. To increase the aperient qualities of the bottled Carlsbad Waters, one teaspoonful of the SPRUDEL SALT should be added.

All orders for the MINERAL WATERS, SPRUDEL SALT, and SPRUDEL SOAP will be promptly executed at the Depots in all large towns, or direct by the Brunnen Nersendungs, direction of Heinrich Mattoni, Carlsbad, Bohemia.

Aerated Lithia Water.—Messrs. BLAKE,

SANDFORD, and BLAKE, are prepared to supply the LITHIA WATERS (of which they were the original manufacturers under Dr. Garrod's instruction) of any strength prescribed by the Profession for special cases. Those in constant use contain two grains and five grains in each bottle, either by itself or combined with BICARBONATE of POTASH or PHOSPHATE of AMMONIA.—Also, Potash, Citrate of Potash, Soda, Seltzer, Vichy, and Mineral Acid Waters, as usual.

Blake, Sandford, and Blake, Pharmaceutical Chemists, 47, Piccadilly.

CAUTION.—IN CHANCERY.

WRIGHT v. MARSHALL.

LIQUOR CARBONIS DETERGENS.

ON the 14th November, 1867, the Plaintiffs in the above cause obtained an injunction against the Defendant for infringing their (Plaintiffs') rights, as exclusive proprietors of the "LIQUOR CARBONIS DETERGENS." And Messrs W. V. WRIGHT and COMPANY hereby caution all persons against imitations of this article, whether colourable or otherwise; and they give Notice that parties manufacturing or circulating such imitations will instantly render themselves liable to legal proceedings.

NOTICE.—Messrs. W. V. WRIGHT and COMPANY having received a communication from the Commissioners of Inland Revenue to the effect that LIQUOR CARBONIS DETERGENS cannot be sold either for Dispensing, Export, or otherwise, without bearing the Government Stamp, they beg to inform the Profession and the Trade that in future it will be only sold in Bottles at 4s. 6d. and 11s. each, containing respectively 16 and 48 Fluid Ounces.

"SAPO CARBONIS DETERGENS" will be sold in the same manner and on the same terms as heretofore.

LIQUOR CARBONIS DETERGENS,

OR

Concentrated Alcoholic Solution of the Active Principles of Coal Tar.

A REMEDY FOR GANGRENOUS SORES, WOUNDS, ULCERS, AND ALL FETID DISCHARGES.

To prepare the Emulsion of Coal Tar, which is applicable to all domestic and therapeutic purposes,

Take Liquor Carbon. Detergens	...	...	1 part.
Water	...	...	4 parts. Mix.

More agitation of the mixture gives a durable Emulsion. By the addition of water, Emulsions at a strength varying from one-tenth to one-thousandth may be effected. Whatever the amount of water, the Tar remains suspended in a state of division equivalent to solution.

The qualitative analysis of this compound shows that it preserves all the virtues of the Tar, the active ingredients of which have been taken up by the alcohol—viz., the benzine, naphthaline, and carbolic acid—a powerful disinfectant. Further, the alcohol imparts to the preparation other properties which render this new compound applicable to the purposes of hygiene, medicine, and natural history.

Sold only in Bottles containing 16 *Fluid Ounces, at* 4*s.* 6*d.;* 48 *Ounces,* 11*s.*

PURE COAL TAR SOAP.

REGISTERED AS

TRADE MARK.

COMPOUNDED FROM OUR "LIQUOR CARBONIS DETERGENS."

By daily use of this Soap, infectious diseases are prevented, and a clear and healthy appearance imparted to the Skin.

Sold Retail by Chemists in Tablets at 6d. and 1s. each.

AND DIRECT FROM THE PROPRIETORS,

W. V. WRIGHT AND COMPANY,

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,

Southwark-street, London, S.E. (Removed from 11, Old Fish-street).

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 17, 1868.

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CLINICAL LECTURE ON INSUFFICIENCY OF THE AORTIC VALVES.

By S. JACCOUD, M.D.,

PHYSICIAN TO THE HOSPITAL OF ST. ANTOINE, PARIS.

TRANSLATED BY JOHN COCKLE, M.D., M.A.

In the ward of St. Anne, there is a female patient whose case is of great interest. She must, formerly, have had an exceedingly robust constitution, since, although she is now sixty-seven years of age, and has been suffering for many years from an affection of the heart, her external appearance betrays no sign of organic degeneration, and her vital energy seems unimpaired. Nevertheless, this woman has been admitted into the hospital with a very serious combination of symptoms: violent palpitation, intense dyspnœa, general œdema of the lower extremities, and congestion of the lungs and liver. Such is an outline of the phenomena recently noted in her case. From this combination of symptoms, we cannot mistake an affection of the heart arrived at the stage of *asystole;* but a direct exploration of this organ can alone reveal the precise seat of the lesion, and, consequently, lead to a correct prognosis. Let us ascertain, then, what information it imparts. The hand applied over the region of the heart receives a moderate impulse, the extent of which transcends the normal limits of the præcordial region; there is, at the same time, a sensation imparted to it, as of a dense and compact body, moving *en masse*, with a certain amount of difficulty. Beyond this, no thrill is felt either at the base or apex of the heart. From these results of palpation, considerable hypertrophy of the heart may be affirmed, and this fact is directly proved by percussion. The upper limit of the base is barely changed, it corresponds to the superior border of the 3rd rib; but, the apex, depressed, and displaced outwards, beats at the level of the 7th rib, two fingers' breadth without the vertical mammary line. In the transverse direction, the enlargement is still more manifest, extending beyond the right lateral border of the sternum, as far as the mammary line upon this side.

Over the entire region of the base, auscultation readily detects a double murmur; the one—rude, rasping, prolonged and intense, corresponds to the systole of the heart, and usurps the period of the lesser pause; the other—shorter, softer, devoid of rasping character, and connected without interruption with the former, accurately coincides with the diastole. The murmurs then exist, one at the time of the first period, two other at that of the second. These murmurs, blended at the expense of the lesser pause, accurately represent a "to and fro" murmur, in which the "to" sound is much stronger than the "return" murmur. Upon gradually lowering the stethoscope, from the base to the apex of the sternum, these murmurs are found to weaken in proportion as the instrument is lowered; still, both are audible as far as the level of the third bone of the sternum; below this point, the second or diastolic murmur becomes inaudible, and, in its place, the normal second sound is heard. With respect to the first murmur, though still persisting, it is very weak, and does not prevent the normal first sound of the right ventricle from being heard. It must be borne in mind, that the base of the ensiform cartilage is the focus of auscultation for the right side of the heart. The murmurs are very audibly heard over the entire region of the base, though not of equal intensity at every part. The maximum site is, without doubt, at the most internal part of the 2nd right intercostal space; at this precise spot, nothing is audible but the double murmur; but, at the corresponding site upon the left side, along with the murmur, the normal tic-tac, two concussion sounds are heard. It is then very obvious, that the murmurs are loudest at the right side, and originate at the aortic focus; the normal tic-tac heard at the same time with them upon the left side, is that of the pulmonary artery.

When the apex is explored, by applying the stethoscope over the site corresponding to the impulse, a double murmur is also audible—one during the first, the other during the second period, but well divided by the lesser pause. In every case, then, gentlemen, in which isochronous murmurs are audible at the base and apex of the heart, this question arises: Does the double murmur at the apex exist *per se;* is it engendered at the spot, that is, in the left ventricle; or does it result simply from the descending transmission of very intense murmurs of the base? If the relative intensity of the sounds only was considered, we might incline to this latter inference; but this method of appreciation is far too coarse, and leads to error. It might very readily happen, as you may imagine, that a murmur at the apex, although originated in this point, may be weaker than a murmur at the base, and thus judged, the relative intensity of the murmurs would prove nothing. A more delicate method of exploration is needed, and I

recommend the following one to your notice:—Join, by a straight line, traced with the pen or dermographic crayon, the two *foci* where the murmurs are heard, that is to say, in the case before us, the second right intercostal space and the point of the sixth left space where the apex beats. Having done this, auscultate attentively the superior *focus*, in order to appreciate the murmurs there produced; then descend gradually, following with the stethoscope the line which you have traced. If the murmurs of the apex are only the propagation of those of the base, you will find them lessen, by degrees, as you quit the superior *focus*, and you arrive in this way at the extremity of your line, when you will again hear these murmurs, but weaker than at any other point of the course traversed. If, on the contrary, there really exist two *foci* of murmurs, one at the base and the other at the apex, the results of the test are altogether different. On quitting the superior focus you determine the progressive diminution of the murmurs just to a point more or less distant, but which generally corresponds to the median line of the sternum; parting from this point, the murmurs do not further diminish; on the contrary, they augment anew as far as the inferior focus, where they are louder than at any point of the second half of the tract. In the first case you have a gradually continuous diminution, so that there exists both a maximum and minimum focus; in the second case, you have, first, a gradual attenuation, then a progressive augmentation, so that there are two maxima *foci*—one above, the other below. The minimum point is between the two.

Musical notation permits us to figure these two conditions in a very exact manner. In order to indicate the variable intensity of sound, let a V shaped figure be drawn, the open end of which is turned towards the maximum, and the apex towards the weakest sound. The results of comparative auscultation in the two instances assumed are represented in Diagrams, on page 514.

This mode of application is easy in proportion to the size of the heart. The interval which separates the two *foci* is then more considerable, and the modification in respect to intensity of the force of the murmur is more marked. With a little experience, this method of exploration may be simplified by omitting the tracing of the conducting-line. In the case of our patient, there are obviously two maxima *foci*, and one minimum between the two, towards the mid-point of the sternum. We are already certain, from this fact, that the murmurs of the apex belong to the left ventricle—that is, to the mitral orifice. But, in order to form a judgment respecting a murmur, not only is its force to be considered, but note must also be taken of its tonality and timbre. A murmur, in propagating itself, loses force in proportion as it departs from the site of its production; but it retains, even to its complete extinction, its primary tonality and timbre. These are qualities that a diminution arising from the feebleness caused by distance cannot modify. A murmur engendered at the base and conducted to the apex, is here feeble; but it presents the same diatonic height, and the same timbre as the initial murmur. But in our particular example this is not what we find. The murmurs of the apex possess evidently a tonality higher than those of the base, and their timbre, duller and softer, contrasts with the clear and sonorous timbre of the superior murmurs.

The study of murmurs, separately, shows their respective individuality, and the character of the pulse will soon furnish us with a fresh proof, which, of itself, would be sufficient.

In possession, then, of these positive *data*:—considerable hypertrophy of the heart; "to-and-fro" murmur at the base, at the focus of auscultation of the aorta; two murmurs at the apex; and normal sounds of the right heart, we may already arrive at some conclusions, and formulate at least a portion of the diagnosis. There is, also, one among other conditions we may affirm, and that is insufficiency of the aortic orifice demonstrated by the diastolic murmur of the base. But there exists at the same spot a systolic murmur so connected with the former as to form a "to-and-fro" murmur, and the interpretation of the physical sign is not without difficulty. At all events, it cannot, like the former, be affirmed without discussion.

A murmur occupying the place of the first sound at the base, having its maximum at the *focus* of the aortic sounds, is the sign of contraction of the orifice of this artery, and when this murmur is connected with another during the time of the second normal sound forming the "to-and-fro" murmur, we infer that both aortic contraction and insufficiency co-exist, a double lesion, in truth, of very frequent occurrence. We must, however, bear well in mind that this double murmur has no pathognomonic value, and that the preceding inference is only authorized after examination.

If, indeed, the diastolic murmur, under the conditions indicated, certainly denotes an insufficiency of the orifice, the systolic murmur may depend either upon contraction of the orifice or upon a dilatation of the ascending aorta, combined with ætheromatous degeneration of its walls. These latter lesions are particularly observed in individuals of advanced age; you will, consequently, see that in the case of a patient 67 years of age, the description of this point of diagnosis becomes one of absolute necessity.

But the influence of aortic insufficiency upon the arterial system is not absolutely the same when the lesion is simple, and when it coincides with contraction of the orifice. In the first case, when a diastolic murmur alone exists at the base of the heart, two distinct murmurs are generally audible in the carotids, provided the aortic valves are so altered as not to produce a concussion sound; one of these murmurs prolonged, occurs at the moment of cardiac systole and arterial diastole. It is produced, according to Beau, by the want of relation which exists between the calibre of the artery and the superabundant wave projected by the hypertrophous left ventricle; the other, shorter, is heard at the moment of cardiac diastole, and arterial systole, and is produced by the propagation of the cardiac murmur. This double murmur may, by dexterous exploration, be heard in arteries remote from the heart, and, most markedly, in the femorals. When, however, the insufficiency is associated with contraction, however slight the latter may be, the phenomena become modified; there is then a double murmur at the base of the heart, but, generally, only one is heard in the carotids, and this, the first, or that which is systolic in relation to the heart and diastolic to that of the artery. This murmur is no longer the effect of the disproportioned wave, seeing that the contraction of the orifice counteracts its undue volume, but is simply the result of the propagation of the first cardiac murmur: it may be even absent, in which case auscultation of the carotids is mute. The second carotid murmur, that which before coincided with the diastole of the heart, and the systole of the artery, disappears under these conditions, because the transmission of the second cardiac murmur is not sufficiently intense to propagate it as far as the arteries of the neck. This failure of propagation has been correctly pointed out by A. Guyot, as constituting a distinctive sign between simple insufficiency and insufficiency with contraction.

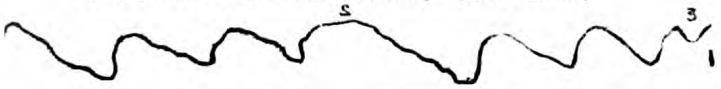
In our patient, two very distinct murmurs are heard in the carotids, and this is a presumption against the existence of any marked contraction of the aortic orifice. And more than this, by adopting the following method, these murmurs may be still detected in the femoral artery. If the stethoscope is applied lightly over the artery, at the moment of diastole, only one membranous click is heard, caused by the sudden dilatation of its wall; increase, slightly, the pressure of the instrument, this click disappears and is replaced by murmur; increase still more the pressure, and, after the one murmur, a second, clearer, and extremely short, is heard. With reference to this mode of exploration of the peripheral arteries, I would remark, that it should not be practised with the ordinary stethoscope, its area is too large, and is badly adapted to the calibre of the arterial tube. Use, therefore, an instrument of narrow diameter, the opening of which scarcely exceeds

TRACINGS REFERRED TO IN THE

CLINICAL LECTURE BY S. JACCOUD, M.D.

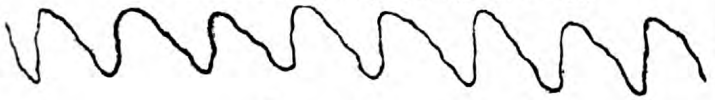
Trace 1.—Aortic and Mitral Insufficiency.

Trace 2.—Aortic and Mitral Insufficiency. (Same Patient.)

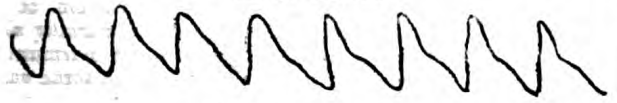


Trace 3.—Aortic and Mitral Insufficiency. (Same Patient.)

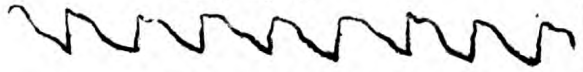
Trace 4.—Aortic Insufficiency, with slight obstruction.



Trace. Marey. Fig. 188.



Marey. Fig. 191.



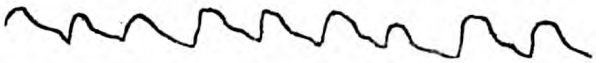
Marey. Fig. 193.

Trace 5.—Simple Aortic Insufficiency; cerebral softening of seven months' duration.

Trace 6.—Aortic and Tricuspid Insufficiency.

Marey. Fig. 214.

Marey. Fig. 215.



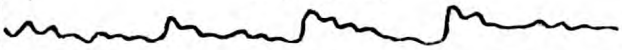
Trace 7.—Obstructive Aortic Disease, probably Congenital.

Trace 8.—Aortic Obstruction; Mitral Insufficiency; Former Pericarditis.

Trace 9.—Mitral Insufficiency, without disturbance.

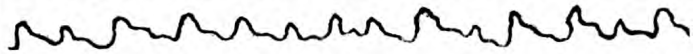
Trace 10.—Mitral Insufficiency, without disturbance.

Marey. Fig. 202.



Trace 11.—Insufficiency and Contraction of the Mitral Orifice.

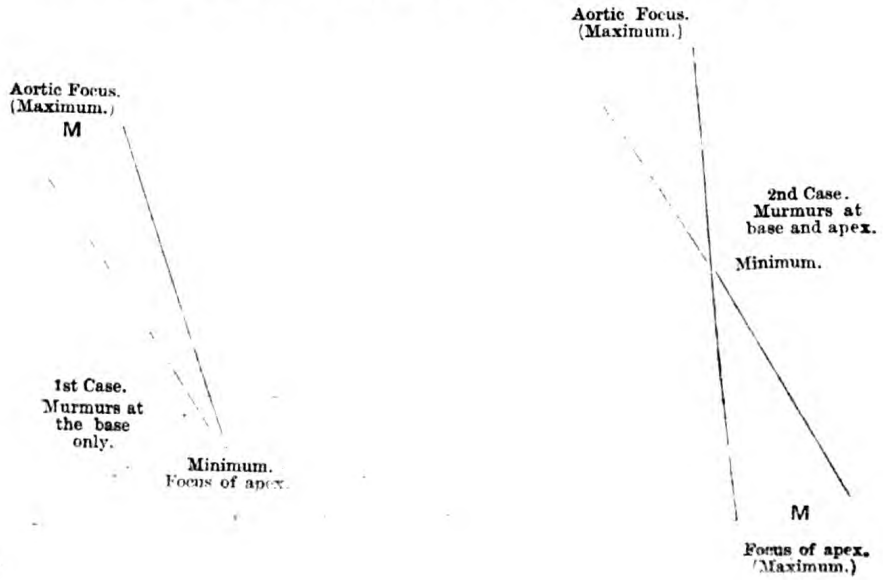
Trace 12.—Insufficiency and Contraction of the Mitral Orifice. (Same Patient.



Trace 13.—Same Patient as 11 and 12, in Asystolic.

Trace 14.—Same Patient, after the exhibition of ½ gr. of Cafeine.

DIAGRAMS REFERRED TO AT PAGE 514.



that of the carotid artery, and phenomena will be perceived which, without such precaution, would evade detection. The precise seat of cardiac murmurs also, in difficult cases, will be more readily appreciated by the use of this form of stethoscope.

The existence of a double murmur both in the carotid and femoral arteries, a very good sign of simple aortic insufficiency, pleads here against simultaneous contraction of the orifice ; but this is not all. The pulse of simple insufficiency possesses an aggregate of characters truly pathognomonic. The heart is hypertrophous, and the wave that it projects is too voluminous, composed, as it is, of the normal wave, augmented by the amount of blood which reflows into the ventricle through the chink left by the insufficiency. As a consequence, the pulse is full, large, occasionally even vibratile. In consequence of the increased impulse, it strikes the finger with the smartness of a spring which suddenly uncoils ; it becomes bounding : then, scarcely has the shock occurred, the arterial tension sinks to a minimum as a result of the reflux at the aortic orifice, the artery collapses, the pulse vanishes, is retrocedent. As the reflux of blood into the ventricle becomes increased by raising the superior extremities to a vertical position, it sometimes happens that, in this position, the rebound of the pulse remaining uncharged, the retrocession is much more marked. This phenomenon, however, is far from being constant. It may be readily conceived that these characters of the pulse may so diminish as nearly to disappear, should there exist, with the insufficiency, such an amount of contraction as to diminish, at the same time, the volume of the wave of blood and the force of the reflux. The pulse of our patient is perfectly bounding and retrocedent, it affords, consequently, two of the most important characters of simple insufficiency ; it is true that the amplitude of the pulse is not in relation with the bounding character of the artery, and that the rhythm of the stroke is very irregular, but these phenomena, entirely foreign to aortic insufficiency, will not be matter of surprise, if you consider that the case of this woman presents a double lesion of the mitral orifice, revealed by the two inferior murmurs, the individuality of which has been established. I affirm then, that if under such conditions the pulse retains the two fundamental characters of aortic insufficiency—bounding and sudden collapse, it is impossible to admit that contraction of the orifice adds its influence to that of the mitral lesion as to act, in a sense, inverse to that of the insufficiency. I shall defer, for the moment, the production of the sphygmographic tracings, as I do not wish to interrupt this demonstration.

So far, the positive signs of pure insufficiency are observed in our patient, and these symptoms, I repeat, acquire an importance of greater value, by virtue of the co-existence of mitral disease. On the other hand, one phenomenon fails which is frequent in isolated insufficiency —pulsation, visible at a distance, in the arteries of the neck and extremities. These rhythmic pulsations, which occasionally become a source of great distress, and sleeplessness, in consequence of the incessant agitation they induce in the cervical, and indeed the entire cephalic regions, result equally from the abnormal volume of the blood wave, and the excessive impulse of the heart. The entire absence of these pulsations in a case of aortic insufficiency, ought to induce suspicion of co-existing contraction of the orifice ; but, in our patient, the aortic orifice is not alone diseased, the mitral orifice presents alterations acting upon the wave of blood in the same manner as aortic contraction, and, since the phenomena, before noted, clearly demonstrate the non-existence of such contraction, it is natural to refer the absence of the characteristic arterial pulsations to the mitral disease.

While, then, the careful study of the differential signs of simple aortic insufficiency, and of insufficiency with contraction, leads to a denial of the existence of this latter condition in our patient—a positive sign confirms our conclusion and demonstrates the existence of dilatation of the ascending aorta. Percussion of the right sterno-clavicular region detects dulness extending from the sternal articulation of the 3rd rib to a finger's breadth below the sterno-clavicular articulation; the zone of dulness extends to two finger's-breadth at least, without the right border of the sternum, and is directly caused by the dilatation of the aorta. I do not think that this dilatation involves the transverse portion of the vessel, as I have vainly sought the sign pointed out by Guattani, as existing in such cases. According to this observer, whenever the arch proper of the aorta is dilated, on pressing the ends of the fingers deeply below the jugular fossa, the expansive impulse of the artery may be felt ; this phenomenon is never so marked as when, with dilatation, insufficiency co-exists, which augments the impulse. Nothing of the kind exists in the case before us, and as I have been enabled, on two or three occasions, to verify the sign indicated by Guattani, I infer, from its absence, that the dilatation is limited to the ascending portion of the vessel, or that the transverse portion is at least but very slightly involved.

With regard to the two murmurs at the apex, the first denotes, positively, the existence of mitral insufficiency, and I shall shortly prove to you that this condition is one of the secondary results of aortic insufficiency ; the diastolic murmur is the ordinary sign of contraction of the auriculo-ventricular orifice, but it may also simply result from excrescences around the orifice, or curtains of the valves—excrescences which engender vibrations in the column of blood causing murmur at the moment of its transit. Of these two changes the second seems to me, here, the most probable : the dilated hypertrophy of the left ventricle, an efficient cause of mitral insufficiency by the mechanical enlargement of the orifice that the valves ought to close, appears to me, in this particular case, difficult to reconcile with contraction of the same orifice ; the pulse again presents very marked irregularity, this sign, which is characteristic of mitral regurgitation, is seldom so marked when insufficiency is conjoined with contraction.

In summary, then, our patient suffers from simple aortic insufficiency, with dilatation and ætheromatous degeneration of the ascending aorta, and from mitral insufficiency, with excrescences around the orifice, and upon the curtains of the valves. Aortic insufficiency is the dominant lesion, the first link in the pathologic chain; it is this insufficiency which has caused the dilated hypertrophy of the left ventricle, and the consecutive incompetence of the corresponding orifice.

Let us now study the sphygmographic tracings. With Marey's instrument the three tracings before you were taken at intervals of several days (see Trace 1).

This tracing was obtained on the day of admission, at the time the accidents of *asystolic* were at their maximum; the pulse does not present one single character characteristic of aortic insufficiency ; it is one of mitral type evidenced by its weakness, irregularity, and intermittence. Feebleness is indicated by the diminished height of the ascensional line corresponding to arterial diastole, or cardiac systole; the irregularity is figured in a marked manner by the want of similarity between the curves, which represent single pulsations. Compare with these the pulsations numbered 1, 2, 3, 4, and you will be convinced upon this point; finally, the intermittence is shown by a line horizontal, or nearly so, which separates certain pulsations from the others. In that part of the trace which precedes the pulsation numbered 4, intermittence is shown in both pulsations.

With a trace so indicative of simple mitral lesion, nothing short of the exceptional clearness of the second murmur at the base would have induced the admission even of the existence of aortic insufficiency. Shortly after, however, matters became greatly modified. The patient had taken, at intervals of two days, two violent drastic purges, dry-cupping had been extensively applied for many days in succession to the base of the chest, and at the same time extract of bark, and a wine, rich in alcohol had been liberally administered. This plan of treatment, the very best that can be pursued in cases that

admit of no delay, caused free intestinal discharges, and copious diuresis; the œdema of the extremities diminished to a considerable extent; from the third day the dyspnœa was scarcely perceptible, sleep returned, and the cardiac contractions, sensible to the touch, had regained strength and regularity. The storm was appeased, and we could now, with surety, seek from the pulse a revelation of the exact condition of the heart. The reply was categorical, you read it as expressed in the second trace (see Trace 2).

The amplitude of the pulsations, or if you prefer the term, the height of the ascensional line, has nearly tripled. The pulse is constantly irregular, but even in this irregularity a real harmony exists, as shown by the exact periodic return of the abortive pulsations. Compare the beats which separate the pulsations numbered 1, 2, 3, and you will perceive that the intermediate series are alike in all particulars; they are composed of a pulsation with a long descent, changing shortly for intermittence, and then for two beats of perfect regularity. This periodic irregularity, according to Marey, is characteristic of senile change of the arteries. Finally, whilst the small pulsations, in crotchet form, denote the influence of the mitral lesion, you perceive in the regular pulsations, bracketed, the undoubted sign of aortic insufficiency. This sign is the abruptness and verticality of the ascensional line, instead of the rounded angle and oblique ascension of the normal pulse. This character could not be more clearly marked than in the first pulsation which follows the trailing beat. The pulse, so far from being at variance with the results of auscultation, here, confirms them thoroughly, and it indicates equally with the murmurs, the existence of the double lesion.

The third trace, taken some days later, is an accurate reproduction of the former, and this constancy in point of character is a guarantee of its semeiological value (see Trace 3).

I cannot permit this opportunity to escape without exhibiting to you the sphygmographic tracings of other cases of cardiac disease. By re-uniting the tracings which we have collected from our patients during the course of the session, I can demonstrate to you, *de visu*, the characters of the pulse as occurring in the principal organic diseases of the heart. This department of semeiology (thanks to the labours of Marey, who is in France, its originator), has now acquired a mathematical precision. In order that you may derive, from my demonstration, instruction really useful and positive, I shall be careful to approximate my types to those given by this skilful physiologist, and to point out the analogies and differences which they may present. My conclusions will thus be rendered more certain, and this somewhat dry examination be made really serviceable.

The traces analysed have afforded us an example of complex type—aortic and mitral insufficiency, with senile degeneration of the arteries. We have united and modified, one by the other, the sphygmographic characters of this triple lesion of the circulating system. I have now to exhibit a trace of almost pure aortic insufficiency, obtained from a man æt. 52, in St. Charles' Ward (see Trace 4).

Four peculiarities of equal importance characterize this form of pulse, viz., perfect regularity, amplitude of pulsation, verticality of the ascensional line and its small terminal crotchet. Whenever a sphygmographic trace presents all these characters well-marked, it is pathognomonic. It may be affirmed to be that of a patient suffering from aortic insufficiency, simple or nearly so. A comparison with one of the types depicted by Marey, will show you the fidelity of that I now exhibit (see Trace, Marey, Fig. 188).

Every point of detail is similar in these two traces save in one particular to which I direct your attention. In our patient the crotchet of the summit is not followed immediately by the oblique line of descent, but is separated by a small line, almost horizontal, termed, sphygmographically, the "level" of the curve. This level constitutes a good sign of senile degeneration of the arteries, and Marey does not assign to it any other signification. Our patient, however has certainly no such degeneration. On the other hand, the aortic insufficiency which, in his case, constitutes the dominant lesion, is combined with slight contraction of the orifice, and it is to this latter change that I attribute the small level which distinguishes the trace from one of pure simple insufficiency. I hesitate the less in this opinion since a similar level is observed in a trace of simple aortic obstruction that I shall exhibit to you. It was taken from a young man—senile degeneration, therefore, may be completely excluded. So far as my knowledge extends, Marey has not pointed out the influence of aortic obstructive disease in the formation of this level. He has, nevertheless, depicted it. The two following traces which he furnishes as examples of aortic insufficiency with obstruction, leave no doubt in the matter; he omits, however, the age of the patients (see Figs. 191 and 193, Marey).

Of the four characters accorded to the pulse of simple aortic insufficiency, two are of more constant occurrence than the others, viz., regularity and verticality of ascent. If the patient is weak, there may occur no marked amplitude of the pulse; consequently, the length of the line of ascent may not be greater than ordinary; the characteristic crotchet may also be absent under these circumstances; but the two remaining characters remain, for these are fundamental. These peculiarities are well-shown in the following trace, obtained from a young woman suffering from simple aortic insufficiency. Seven months ago this patient was seized with slight hemiphlegia and aphasia, caused by cerebral embolism. The cerebral disease persists, and, at the time the trace was taken, the patient was in a state of very great debility (see Trace 5).

The typical pulse of aortic insufficiency may, as we have seen, become modified, both by the general conditions of the individual, and by coincident lesions of the heart, whether mitral insufficiency or aortic obstruction. The modification is not the less remarkable when defective closure of the aortic valves is complicated with insufficiency of the tricuspid orifice. We have met with an example of this rare complication in a man æt. 44. The pulse no longer presents either the amplitude or the characteristic crotchet; the verticality still exists but does not appear through all the pulsations, and this result takes from the trace its perfect regularity, but the irregularity thus produced in nowise resembles the disturbances pathognomonic of the mitral pulse. (*Vide* traces 1, 2, 3, 11.) (See Trace 6.)

Marey has given two traces of the radial pulse in tricuspid insufficiency, and notwithstanding the difference resulting from the absence of coincident aortic insufficiency, it is easy to detect, between these traces and the preceding, a relationship which connects them (see Figs. 214 and 215, Marey).

The weakest pulsations of our trace possess a curve perfectly resembling those of Fig. 214, and the manner of succession of the large and small pulsations, calls to mind the ryhthm of the trace 215.

(To be continued.)

Original Communications.

ON DISLOCATION AND ABNORMAL MOBILITY OF JOINTS, THE RESULT OF CHRONIC RHEUMATIC ARTHRITIS.

By ROBERT ADAMS, M.D.

(Read at the meeting of the Surgical Society of Ireland, on the 24th of April, 1868.)

LET me now, gentlemen, redeem the pledge I made in my inaugural address as President of this Society, that I would subject to its notice some remarkable examples of external disease, authenticated by casts and drawings.

The first case I shall bring forward is one of dislocation and extraordinary mobility of some of the articulations of a patient, who laboured under the disease termed chronic rheumatic arthritis, and from the continued effects of this

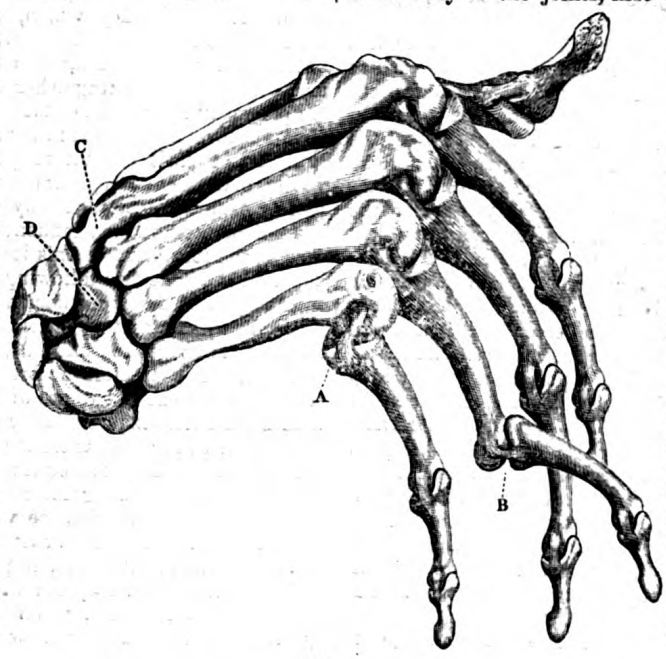
disease there can be no doubt but that these remarkable dislocations resulted.

served that the joints become *distorted* by it, and *probably* in bad and *inveterate* cases even *dislocated*."

The distortion, as the disease increases, becomes self-evident in almost every case, and we can now adduce abundant evidence to prove that the joints, both small and large, become, under the influence of this disease, sometimes partially and sometimes completely dislocated.

There is something peculiar in these dislocations, they evidently do not occur without there being previous disintegration and disorganization of the articular textures; and yet the abnormal mobility which accompanies and follows this disintegration of the structures of the

Dr. Haygarth, of Bath, who, under the denomination of nodosity of the joints, first described this disease, ob-



joints, is attended with but little pain, or increased swelling, or inflammation.

Luxation of the bones of the fingers, I have elsewhere stated, are frequently the consequence of chronic rheumatic arthritis—the most usual of these I have seen is that of the first phalanx (A, Fig. 1) of the little finger towards the palm, from the head of its metacarpal bone.

Cruveilhier has described and delineated a case in which *all the* phalanges of the fingers were thus dislocated towards the palmar surface of the hand. — Livraison xxxiv. Planche (see Note 1).

The median joints also of some of the fingers are occasionally dislocated. (See Fig. 1, B.)

Fig. 1.

Effects of chronic rheumatic arthritis on the right hand, as exhibited on post-mortem examination, upwards of eleven years after the commencement of the disease. A, The base of the first phalanx of the little finger luxated forwards. B, Luxation of the second phalanx of the ring finger, at the median joint, backwards.

In my treatise on chronic rheumatic arthritis, I have mentioned that partial dislocations of the shoulder were frequently found to be the result of this disease. Partial and complete dislocations of the patella also occur as a consequence of it. But laying aside generalities as to these luxations, I will at once introduce to your notice a case of a patient, who had chronic rheumatic arthritis in almost all his joints, small and large, and *in three of these last*, namely, two shoulder-joints and one knee-joint, complete dislocation and abnormal mobility of the bones composing these articulations existed.

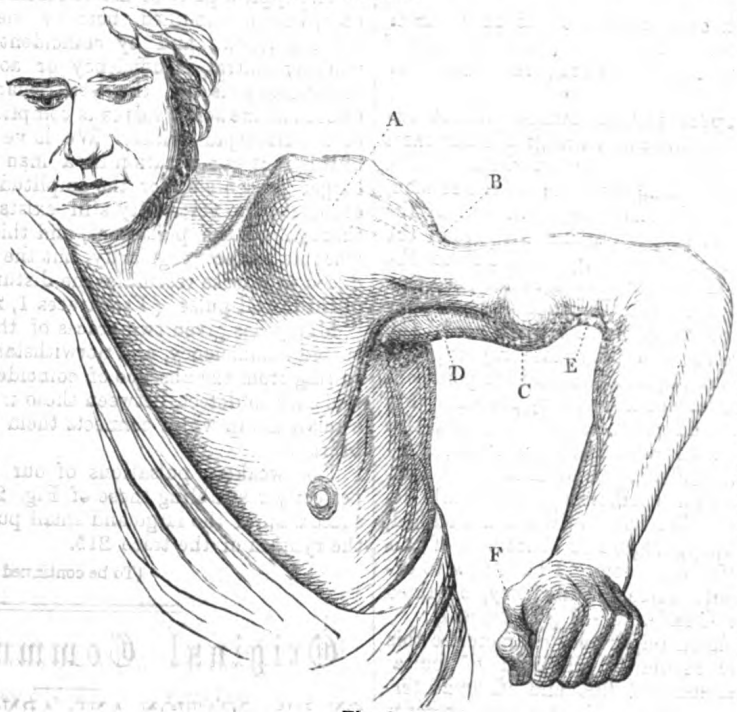


Fig. 2.

Chronic rheumatic arthritis of the shoulder, with abnormal mobility of the joint.

CASE.—*Chronic Rheumatic Arthritis of both Shoulder-joints and of the left Knee-joint, with remarkable Abnormal Mobility of these three Articulations in the same patient. The result of the Disease.*

J. Stafford, aged 48, cabinet-maker, was admitted into the Richmond Hospital, on the 2nd September, 1856. The notes of this case, taken at the time of his admission, are as follows: he is a pale, rather delicate-looking man, who seems to have led a laborious life.

As we stand before the patient and view his left shoulder, we observe it is much altered from its normal form. Its appearance, however, is very variable.

When the patient keeps his elbow to his side the stump of the shoulder presents a rounded appearance, which is due to muscular development, but to the existence in the interior of the shoulder-joint of a large quantity of synovial fluid. When he has raised his left elbow from his side (Fig. 2), we are at once struck with the abnormal appearance the arm presents. Just where the deltoid muscle is inserted into the humerus, a remarkable angle is formed, the sinus, B, of which looks upwards and outwards, and presents such an appearance as the humerus does when the head of this bone is dislocated from an accident into the axilla. The patient, as he moves his elbow from his side, feels the rubbing of the bony surfaces on each other; and if the surgeon introduce his fingers high up into the hollow of the axillary cavity, and at the same moment still further abduct the elbow from the side, the head of the humerus is plainly felt by the fingers to be really dislocated into the axilla. If the elbow be first drawn backwards, and an impulse be given to the shaft forwards, then the head of the bone can be thrown very much towards the clavicle, and be made to present a more obvious tumour in front under the pectoral muscle, than downwards into the axilla, exhibiting not only the semblance to, but the reality of, the luxation forwards and inwards. When the head of the humerus is thus dislocated

forwards, and rotation is communicated to the arm, a remarkable crepitation is perceived, while the head of the bone is felt to obey all the motions given to the shaft.

The region of the shoulder presents to the view a sufficiently plump and rounded appearance, and in this respect only, differs in its aspect from that which this region assumes when accidental luxation has occurred. In other words, the angular appearance of the shoulder, at the acromion, usual in accidental luxation, is absent, because the space beneath the acromion, abandoned by the head of the bone, is filled up with an inordinate quantity of synovial fluid, which distends the capsular ligament. As the patient can at will produce the dislocation in question, so also can he voluntarily, or by the exertion of the muscles of the shoulder alone, return the head of the bone back to the centre of the glenoid cavity; and, indeed, I believe the ordinary movements he has been in the habit of performing at his work, so far as the articulation of the left shoulder is concerned, consist altogether in the continual change of place of the head of the humerus from the glenoid cavity into the axilla, and back again from this space to its socket. The patient says that the shoulder-joint feels remarkably loose, but that he can perform all the "underhand" movements of the upper extremity perfectly, and that he could earn his bread at his trade, were it not for the sense of weakness and really relaxed condition of his left knee, which prevents him standing at his bench at his work.

When we take hold of the elbow of the patient, and pull the humerus downwards in the direction of its long axis, we find that the bone can be made to descend from the glenoid cavity for the extent of one inch. The capsular ligament must therefore be longer and wider than natural to admit of all this change of position of the head of the humerus.

It may, I think, also be assumed that the margin, too, of the original glenoid cavity is, probably, now so fashioned that its edge does not afford the same obstacle it ordinarily does to the exit and the return of the head bone again to its place.

The *intra-articular* portion of the tendon of the biceps is in this case, no doubt, as it ordinarily is in this disease, destroyed; and hence it is that the movements of the head of the humerus are unrestrained in the widened capsular ligament, and that the luxations mentioned are permitted.

Then, as to the *extra-articular* portion of the tendon of the muscle, it is seen to form an abnormal line (Fig. 2, D), extending from beneath the fold of the pectoral muscle for two inches before it reaches the upper margin of the belly of the biceps, which is smaller, shorter, and placed lower down than natural; and when, by the will of the patient, this muscle is thrown into action, it forms a prominent rounded tumour, C, about the size of an orange. On these occasions, also, we notice, descending from the lowest part of the muscle, another prominent line, E, which appears to be the lower tendon of the biceps passing to its insertion into the radius.

It was also noted at the period of his first admission into hospital, 1856, that his left knee-joint is much swollen from effusion into the synovial sac. The swelling extends upwards on the front of the thigh, and there is also a remarkable fluctuating swelling posteriorly in the popliteal space, as in a case of chronic rheumatic arthritis I have already published (see Atlas plate, Fig. 9). He cannot for the last three months stand on this limb. Whenever he throws the weight of his body on it there is a yielding of the knee, which becomes instantaneously bowed outwards. When we grasp the leg above the ankle we can easily communicate to the knee-joint an abnormal movement of abduction and adduction. The patient states that for the last two years he has felt the left knee-joint very weak, and that latterly it has become swollen; yet that he used to walk about, and even work at his trade, until about three months ago, when walking through the street, his left knee gave way suddenly under him, as if something had been ruptured and broken within the joint, and that ever since this occurrence he has been unable to walk, or even stand, without assistance. The swelling of the joint has been truly chronic. Even when the sudden giving way of the knee announced that some rupture of the ligamentous structure within the joint had occurred, on this occasion there was no pain felt at the moment, nor did any increase of the swelling follow the accident. The patella is very large, measuring nearly three inches transversely, and can be moved about as if very loosely connected by its ligament to the tibia; it seems to float, as it were, on the surface of the synovial effusion existing within the joint. The other usual symptoms of chronic rheumatic arthritis exist, cringing noises are heard on moving the joint, and when we sink our fingers as deep as can be done into the cavity of the swollen knee-joint, we can detect some few foreign bodies in its interior; when we press the bones of the leg up against the condyles of the femur, in the direction of the long axis of the limb, or even percuss the heel in the same direction, we cause the patient no sense of uneasiness.

Such is the *abnormal* mobility in the lateral directions, that we fear a complete luxation of the bones is imminent.

OBSERVATIONS.

Treatment.—In such an advanced case of chronic rheumatic arthritis of the knee and shoulder-joints, as described in the account given of the foregoing case, it did not appear to me that much benefit was to be expected to be derived from the adoption of any special line of medical treatment carried on within the walls of an hospital.

The patient did not complain in any of the affected joints of the upper extremities, and, under all these circumstances, he was but for a very short time detained in the institution.

It might occur to some to suggest that a system might be adopted relative to the local treatment of the loose condition of the left knee-joint in this case, with the hope of bringing about an anchylosis of this articulation, but I was myself without a hope that any line of treatment could be devised in this case which could bring about a permanent stiffness of the knee-joint, because this articulation was not only inordinately free on flexion, but had abnormal lateral motions of adduction and abduction, so that I had not the slightest confidence in any measure which we could adopt as likely to induce anchylosis, more particularly as I have always remarked that the joints in this disease were not disposed to anchylosis.

The principal indication therefore appeared to me to be to provide for him such a mechanical appliance as might best counteract, when worn on the limb, the abnormal mobility of the knee. The instrument which seemed to me best calculated to fulfil this indication, was one of these not uncommonly used to support the knee in cases in which this joint has been observed to be deformed, leaning too much outwards or inwards, such an instrument, Fig. 31, as delineated in the valuable work of Bonnet;[1] but in this that I had caused to be constructed, the hinge-joint at the knee has been suppressed, as our object was to render the limb stiff and firm, so that the patient might be able to stand at his bench.

This instrument was composed of two steel-rods, which corresponded respectively to the outer and inner sides of the limb. (see Fig. 3.) These lateral rods were continuous below, forming a loop or stirrup, the basis of which traversed the sole of a boot, which was laced round the ankle. The outer steel-rod was joined above, transversely, by a leathern girdle, which was strapped around the waist: a hinge-joint in this outer rod, allowing of flexion of the thigh, corresponded to the situation of the hip-joint; while below, in both of these lateral supporters, corresponding to the situation of the ankle, a hinge-joint also existed. Two transverse bars—the one placed behind the centre of the thigh, the other behind the calf of the leg—well padded, and covered with chamois leather, half encircled the limb pos-

1 Traité de Therapeutique des Maladies Articulaires. Par A. Bonnet. Page 345.

teriorly in these two situations, while the circle was completed by leathern straps buckled in front of the leg and thigh.

In this apparatus the limb was secured, and all motion of the knee-joint prevented, while the two hinge-joints existing in the apparatus — one at the level of the hip, and the other at the ankle — allowed of the necessary movements in walking.

Stafford appeared this morning, January 15, 1857, at the Richmond Hospital, with the above-mentioned apparatus applied, and he stated that he derived the greatest advantage from the use of it, as it enabled him to stand and work at his bench for several hours a day, and it was by its aid he walked from his residence this morning, two miles distant, to the hospital.

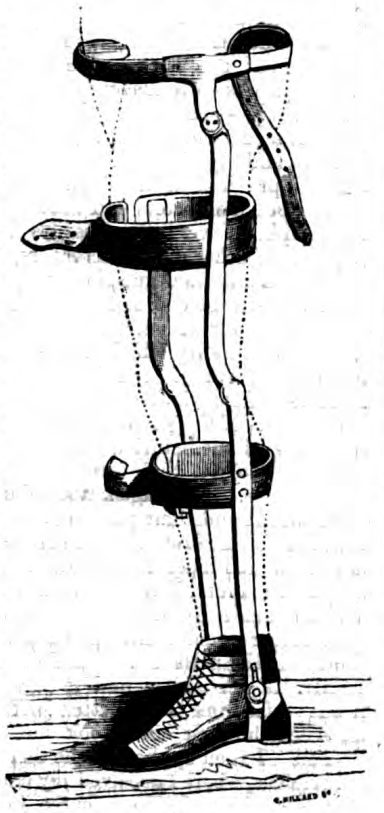


Fig. 3.
Apparatus for the support of the knee-joint, applied in the case of Stafford.

We should, however, here also mention, that in addition to the steel apparatus (Fig 3) the limb was included, from the trochanter major to the ankle, in a case made of sole leather, enveloping closely the thigh, knee-joint, and leg, united in front by buckles and straps.

(To be continued.)

HISTORICAL SKETCH
OF THE
DISMEMBERMENT OF PHARMACY FROM PHYSIC.

By M. DONOVAN, M.R.I.A.,
HON. MEMBER OF THE PHILADELPHIA COLLEGE OF PHARMACY.

(Continued from page 494.)

THE rebellion breaking out soon after, the King's order in Council was not enforced; and, notwithstanding this contemplated dissolution, the Society of Apothecaries still continued to exist, but merely as a trading corporation, and one of the city companies. In the time of Charles II. an attempt was made by the College to restore the old practice of causing the patient to send for the articles required, and compounding or dividing them at home; but the attempt failed. For, the power and influence of the apothecaries daily increasing, the physicians had no alternative but to be left without business, or to comport themselves "in a professional manner" towards the apothecaries. There was at that time a term well understood of "going snips" with the apothecary, which meant a certain percentage paid by him to the physician on all prescriptions written by the latter; and this practice, not a very creditable one to either party, tended still more to advance the influence and power of the apothecaries. Guy Patin, the censor of his age, says the apothecaries of England (1642) are great "coupeurs de bourses," and the physicians aid them (Let. Choisies ii., 349); but Guy's tongue is no slander, for he says that Sir Theodore Mayerne was "un grand charlatan." For the last century these practices, if they ever existed, are altogether unknown in the British isles.

The apothecaries, very properly emulous of a public acknowledgment of their services, petitioned Parliament to exempt them, like the physicians, and for the same reasons from serving in the offices of constables, scavengers, and other parish offices; and endeavoured to obtain a clause giving them legal permission "to administer physic to the poor." But although by the Act of 6, William III. (1694), they obtained the exemption required, they failed in the effort to obtain a license to practice. The physicians exasperated by this new attempt at encroachment, determined on a measure of retaliation, and (1696) adopted a resolution in the College to raise a fund for the supply of medicines to the poor at a reduced rate. In a short time they enrolled forty-six subscribers at ten pounds each, amongst whom was Sir Hans Sloane, afterwards so great a benefactor to the apothecaries. A grant of the College laboratory, which had long lain neglected, was made them for the preparation of their medicines, and in half a year the dispensary was opened at the College in Warwick-lane, and soon after two others in different localities. A pamphlet published about that time (Brit. Mus.) declares that the dispensaries charged eightpence or ninepence in the shilling less than the apothecaries, and gives a list of apothecaries prices—viz., a cordial bolus, one shilling and sixpence, by some two shillings and sixpence, it being really worth twopence. A cordial draught one shilling and sixpence, although dear at threepence. A vomit one shilling and sixpence or two shillings and sixpence, worth one or two pence. A quart apozem, worth threepence, cost two shillings and sixpence, unless the apothecary chose to divide it into eight draughts and charge it at eight shillings; or one ounce of a powder ordered by the physician, dear at one shilling, the apothecary by officiously dividing it into sixteen papers would make it worth eight shillings.

In a document published in London (1686) by the College of Physicians, in which they set forth their powers, amongst other unseemly manifestations of irritation they say, that the fellows were sworn "to do all things for vindicating and perpetuating physic, so that a profession be not invaded by the vulgar (meaning no doubt the apothecary) which hath been the usual support of the younger sons of the gentry of this kingdom" (Appendix to be statutes 1696). Such a self-glorification as this last the London College of Physicians did not blush to avow; and it is just in character with the following by-law passed ten years afterwards:—"No surgeon, apothecary, or any person that had been apprenticed to a trade shall be admitted into the order of candidates or fellows." We blush to find the same sentiment professed even by the Stagyrite, who says, "For it is not possible for him to apply himself to the study and practice of virtue who lives the life of a sordid mechanic or hireling"—(Taylor's Aristotle.)

The dispensaries of the College went on prosperously for some time. In one of their publications they declared that, on comparing the number of their prescriptions with the cost of them, they found that medicines had been, on the average, sold to the public at three half-pence per dose—a price very different from that charged by the apothecaries. But as the physicians had sold medicines at so low a rate, the apothecaries determined on selling advice at a still lower; and at length erected a dispensary of their own, where medicine and attendance would be supplied to each individual of a family at the rate of two shillings per quarter, and at the patient's own residence without additional charge (see Prospectus of the College, 1732).

The apothecaries, watchful for an opportunity of retorting the charge of extortion, brought one Dr. Tennant, before the College, who had prescribed for a servant two pills for which he had twelve shillings, and at night a little syrup, for which he got twenty shillings, and another twelve shillings. In another case, the doctor charged six shillings

for a pill which operated forty times as an emetic, and thirty times as a purgative (Goodall's His. Acc.)

To curtail the apothecary's profits, and to compel him to relinquish the practice of expensive subdivisions of medicines, the physicians, under pretence of guarding against the alleged mistakes made in translating the Latin directions, enacted a by-law (1696) that no member of the College shall write any Latin directions for the use of a medicine, but shall order it to be marked with such titles as will distinguish it, and shall leave directions for the use of it in English with the patient, under twenty shillings penalty. Thus, the patient knew what he ought to receive.

The dispensary occasionally compounded for the rich as well as for the poor under the flimsy pretext of guarding against adulterations and substitutions. They also kept secret formulæ to prevent apothecaries from boasting that they knew all the medicines that physicians used, and therefore could employ them. The apothecaries revenged themselves by preventing, when they could, any physician from being called in who had any connection with the dispensary, and those who had not found their account in the friendship of the apothecaries. The latter circulated a list of the physicians with a mark affixed to the names of those that were not to be countenanced; they charged higher prices for medicines prescribed by a physician, and we find it stated in a pamphlet dated 1702, entitled "Present State of the Practice of Physic," that on one such occasion the apothecary charged two and sixpence each for boluses. An apothecary even insulted a physician in a public room because the latter, in treating a patient, had prescribed so little medicine. A pamphlet of 1707 says that some physicians opposed the dispensaries, crouched to the apothecaries, concealed their blunders, and entered into collusion with them to enhance their bills, because they found it impossible to get into practice if opposed by them (Brit. Mus.) The physicians charged the apothecaries with ingratitude, and said that they owed any little knowledge they possessed to them, and that they had always been their servants, attending them in the sick-room to take their directions. The apothecaries replied that the physicians themselves knew nothing of the treatment of diseases, but what they learned from antiquated books, as they had no opportunity left them of learning modern practice ("Calamity of the English in Sickness," 1707). The medical war, as it was called, was spoken of in every company, and was celebrated in the well-known poem, "The Dispensary" by Dr. Garth.

The physicians, enraged with these attacks on their professional competency, retorted this charge of ignorance on the apothecaries. A pamphlet "On the Usefulness of Dispensaries, &c., 1702," thus describes the education of the "apothecary doctors," as they were called:—"At a grammar school he has learned to construe a little Latin; it is very rare to have a smattering of Greek; he is apprenticed; is set to the pestle and mortar, and to run of errands. After a year or two, he begins to make up prescriptions and carries home the medicine to the patient, and is thus employed until his time is run out. Hence he has read nothing and knows nothing of disease, and has forgotten his Latin. Thus accomplished, he sets up as a general practitioner, or apothecary doctor."

Meanwhile, the number of these increased. In 1640 the number in London and Westminster was 100; in 1700 they were at least 337 within the bills of mortality, but physicians estimated them at 1000, the total number of the College being 103; that is ten apothecaries to one physician, although in well-regulated cities of other countries the ratio was just the reverse, the number being restricted to one apothecary to ten physicians. At this period Copenhagen had but twelve apothecaries; Hamburgh had but one apothecary's shop; Stockholm but four or five; Paris 51.

The apothecaries of London themselves loudly complained of their numbers, declaring that their stock of medicines, which the prolixity of the pharmacopœia compelled them to keep, lay spoiling on their shelves, owing to the excessive division of the whole quantity of medical business to be done. ("Bellum Medicinale" and "Present State of Physic and Surgery," 1701).

At this time the whole medical profession was in a state of the utmost confusion. The physicians were divided into two parties—the dispensary doctors and the anti-dispensary party—each abused the other, impugning motives and blaming actions. The surgeon quietly trenched on the physician and apothecary; the apothecary resolutely invaded the province of the surgeon and physician; the apothecaries became doctors and doctors apothecaries. Malignant pamphlets were the missiles which the belligerents flung at each other; the doctors represented the apothecaries as ignorant and grasping cheats; and the apothecaries represented the doctors as self-sufficient monopolists. The apothecaries, having successfully invaded the province of the physician, relinquished their own, and no longer prepared either chemicals or galenicals, but bought them from wholesale dealers who merely studied their profits (Ibid).

In defiance of the powers of the college, the apothecaries still practised medicine, at first on sufferance, but afterwards more boldly, their gradual encroachments exciting little jealousy. At length, the college finding their province invaded and their powers defied, determined to try the efficacy of the law in confining the apothecaries to their real duties. A proper opportunity soon occurred. In 1704, one Seal, a butcher, being sick, sent to an apothecary named Rose, who made up for him several medicines as proper for his distemper—such is the apothecaries statement; but the following is the patient's:—"I, John Seal, being sick, had this Mr. Rose's advice and medicine for a year together, but was so far from being better for them that I was worse than when he first undertook me, and at an expense of near £50. I then applied to the dispensary at the College of Physicians, where I received my cure in about six weeks, for less than forty shillings charge in medicine." On the strength of Seal's statement, the case was brought to trial in the Queen's Bench (Anne). The verdict was argued by counsel at bar, when the judges unanimously agreed that the facts did amount to practising physic within the meaning of the statute, and that the proper business of an apothecary is to compound the prescriptions of physicians. This decision, far from subduing the resolute apothecary, he brought his case, by writ of error, to the House of Lords, on the ground that this decision would ruin the trade of the apothecaries, that the monopoly on the part of the physicians amounted to a tax on the nobility and gentry, who on the most trivial occasions can have no assistance for their servants without giving a fee to one of the college. The judgment in the Queen's Bench was reversed.

From this time the practice of medicine was chiefly in the hands of the apothecaries. The physicians declared that the apothecaries never called them until the patient's case was hopeless, and as a protection for themselves against indictment in case of the patient's death.

Taking leave of these professional squabbles in Great Britain, let us take a passing glance at the state of medical affairs in some other countries of Europe.

In Italy, the medical profession had for several centuries been under a strict and minute system of supervision and discipline. So far back as the reign of Frederick II., Emperor of the Romans, an edict was issued by that monarch, date 1237, which for minuteness of detail in the regulation of every particular that related to medicine had never been equalled. In 1685, it was adopted as the basis of an edict by Frederick William of Prussia, and rendered much more extensive in its provisions and more applicable to the altered condition of society. As a kind of medical curiosity, I give the substance of both.

The edict forbade any one to study medicine unless he had studied logic for three years; he might then proceed to the study of medicine, which he was to continue for five years, including surgery; and after being examined, he was qualified to practise. He shall swear that should it come to his knowledge that any apothecary (confectionarius) compounds

unfaithfully, he shall denounce him to the Senate. He shall swear that he will give his advice gratis to the poor—"Iste medicus visitabit ægrotos suos ad minus bis in die ad requisitionem infirmi : semel nocte : a quo non recipiet per diem, si pro eo non egrediatur civitatem vel castrum, ultra dimidium tarrenum (a Neapolitan or African coin-Spelman) auri. Ab infirmo autem quem extra civitatem visitat, non recipiet per diem ultra tres tarrenos cum expensis infirmi, vel ultra 4 tarrenos cum expensis suis." He shall not keep company with apothecaries, nor make bargains for cures, nor keep a shop. The apothecaries shall be bound by oath that all confections (compound medicines) shall be prepared according to prescription without fraud. He may charge for medicines, not kept in store beyond a year from the time of purchase, so as to profit 3 tarreni per pound ; for articles kept more than a year, 3 tarreni per ounce. The appointment of sworn examiners of apothecaries' shops then follows (Bulæi Hist. Univers, Par. III., 158).

The edict of Frederick William, which embodied and added to the foregoing, dated 1685, was intended to regulate all departments of the profession of medicine : it treated of physicians, apothecaries, surgeons, barbers, bathers, oculists, teeth-drawers, midwives, quacks, vagabonds, and cheats. Its chief provisions were as follows : The sale of medicines was strictly confined to apothecaries. In return for this monopoly, the discipline of apothecaries and their apprentices was minutely detailed. The master shall see that his apprentice says his prayers every night and morning. He shall take care of fire and candles in his laboratory and shop. He shall see that prescriptions marked *statim* or *cito* shall be immediately executed. He shall take an oath to the effect that he will not exceed the charges marked in the price-list authorised by the edict, that he will faithfully prepare physicians' prescriptions, and not substitute nor use false weights and measures ; that he will abstain from visiting and treating the sick ; and, particularly, that he will not sell purgatives, vomits, strong medicines, opiates, or poison, without the knowledge and consent of a physician.

The apothecary's apprentice is instructed by the royal edict to get up early every morning, to say his prayers with care, to light the laboratory fire, open his shop in time, keep it clean, and wash all the utensils any time they are used ; he shall abstain from drunkenness and gambling ; before he is bound he shall be examined by the College of Physicians as to fitness ; he must be of honest parents ; and shall compound nothing of consequence until he has been an apprentice four years.

Apothecaries, surgeons, and barbers, were ordered to be examined by the College of Physicians of Berlin, and the apothecary shops are to be examined by the College. The surgeons are not to undertake internal cures, they shall always take a physician for his advice in dangerous cases. Grocers, chemists, distillers, confectioners, perfumers shall neither prepare nor sell drugs, for this is the province of the apothecary. The bath-keepers shall not give internal remedies, nor encroach on physicians, surgeons, or apothecaries. Oculists, operators, midwives, and teeth-drawers, must be examined by the College. Medical students, surgeons, and midwives, must attend anatomical demonstrations.

Another edict, dated 1693, gave a list of the charges for physicians' visits, consultations, &c., a price-list for surgeons' operations, as trepaning, setting fractures, bleeding, taking off a leg or an arm ; as also a price-list for all medicine sold by apothecaries.

These edicts were to take effect in the southern parts of Italy ; in that country pharmacy was conducted with a degree of elegance never surpassed. The traveller Misson states that in a celebrated pharmaceutical establishment at Loretto, he was shown 145 earthern vessels which were highly esteemed, as they were believed to be painted by Raphael : on the largest were represented St. Paul and the four Evangelists, and on the rest the histories of saints and subjects from Ovid—an unfortunate association (Travels). Others have reported still more splendid embellishments of this celebrated establishment. In France, also, some beautiful pharmaceutical repositories were to be seen.

In Paris (1660) the surgeons and barbers had been incorporated into a community, and placed under the jurisdiction of the State barber, who enjoyed the privilege of shaving the king (Daubigny). The clergy and the monks often officiated in the shaving department of surgery ; and the clergy undertook the treatment of diseases to such an extent that their clerical duties were often neglected, until it became necessary to interdict their practice by royal authority. Monks and friars occasionally sold medicines, but were prevented by an edict in 1707. It was not until the time of Louis XVI. that the French apothecaries were separated from their unfortunate union with the grocers ; previously to this, the apothecaries had sought and obtained the privilege of selling hams. There was a time during the reign of King John of France (1359) when an edict was issued which forbade any one to practise pharmacy unless he knew how to read.

In the foregoing sketches I have abstained from any allusions to Irish pharmacy, aware that a succinct account of all that is curious or useful in it had been already given in a "History of Pharmacy in Ireland," by Dr. William D. Moore, M.R.I.A., &c.

Hospital Reports.

CITY OF DUBLIN HOSPITAL.

OPERATIONS PERFORMED ON JUNE 6TH.

By Mr. CROLY.

Case 1.—AMPUTATION OF THE PENIS FOR CANCER INVOLVING ALMOST THE ENTIRE ORGAN.

P. K., aged 60 years, married, father of three children, by occupation a carpenter, residing in the County Kilkenny, was recommended to Mr. Croly for operation, and was admitted into hospital on the 1st of June.

History.—He enjoyed excellent health until three years ago, when he got a fall on a beam of timber, and struck the penis. Some blood escaped, at the time of the injury, from beneath the prepuce. The patient had not congenital phymosis, and never suffered from venereal disease. Subsequently to the blow he could not draw back the foreskin, and the penis became swollen and painful. He has suffered much pain of the part, like the darting of needles, for the last three years. Three weeks before his admission into hospital, a blister appeared on the dorsum of the penis, about an inch behind the orifice of the prepuce; it ulcerated and bled at that point, and there has been a sanious fœtid discharge from beneath the prepuce.

Condition of penis on admission of patient into hospital.—Phymosis, with considerable redness of the entire organ; superficial ulceration at the orifice of the prepuce, and a fungating sore on the dorsum, which bleeds frequently. On grasping the penis it is felt to be of stony hardness to within an inch of the pubes. There are three small glands enlarged in the groin, two at the right side and one at the left. No gland enlarged near the dorsum of the penis.

There was also hydrocele of the right tunica vaginalis, with the testicle at the bottom of the tumour, and *pointing in front.*

Mr. Croly tapped the hydrocele, avoiding the prominen part, which he said was caused by the position of the testicle. Seven ounces and a-half of clear fluid were drawn off.

Mr. Croly held a consultation with his colleagues, when it was decided that amputation of the penis should be performed, which was accordingly done on Saturday, the 6th instant, as follows:—

The patient having been placed fully under the influence of chloroform, the penis was grasped firmly with Ricord's forceps, and held by an assistant. Mr. Croly made a pre-

liminary circular incision through the integuments, behind the disease, and then with one sweep of a stout straight bistoury, severed the organ. Hæmorrhage from the dorsal arteries was arrested by torsion, and the bleeding from the corpora cavernosa by acupressure. A long needle having been passed beneath the corpora cavernosa, and above the urethra, a loop of inelastic iron wire was passed over the needle's point, and fastened by a half-hitch around the eye-end. The urethra was next divided beneath for half an inch, and the mucous membrane stitched to the integuments at each side. A gum-elastic catheter was passed into the bladder and retained by means of a piece of tape, which was fastened to the thighs by strips of adhesive plaster.

The patient was ordered opium in half-grain doses, to be taken every third hour, with one grain of quinine.

The wound was dressed with carbolic acid.

Mr. Croly addressed a few practical remarks to the pupils on this case—first, as regards the importance of accurate diagnosis, and next as to the mode of operating. He directed their attention to the manner in which the skin was first divided by a circular incision, which facilitated the section of the penis, and the necessity for having the end next the pubes held tightly during operation to prevent retraction before securing the blood-vessels. The mode of arresting the hæmorrhage by torsion and acupressure was also fully explained, and the manner in which the urethra was divided and stitched to the integuments to prevent contraction of the orifice.

Mr. Croly also drew the attention of the class to the advantage of passing a catheter fully into the bladder after the operation, which not only keeps open the orifice of the urethra, but also prevents the urine from irritating the raw surface.

Case 2.—FURTHER OPERATION FOR ENORMOUS PROLAPSUS RECTI.

Mr. Croly performed Hey's operation in the case of enormous prolapsus recti (of which we gave a report on the 3rd inst.) in the following manner:—The patient was put under the influence of chloroform, and placed on her left side with the knees flexed. A large fold of integument near the anus was raised with a double tenaculum on each side in the direction of the tuber ischii, and excised with curved scissors, the edges of the wound were then brought together by iron-wire sutures. A third fold of integument was also excised in the direction of the coccyx. The wounds were dressed with carbolic acid ; a compress fixed by strips of adhesive plaster approximating the nates was then adjusted, and a T bandage applied.

Case 3.—LARGE CHRONIC ABSCESS OF THE THIGH FROM MORBUS COXÆ—TREATED BY CHASSAIGNAC'S DRAINAGE TUBE.

A scrofulous boy, aged 10 years, who has had morbus coxæ for many months, was admitted into hospital with a large chronic abscess on the external surface of the left thigh.

Mr. Croly passed a drainage-tube through the abscess in the following manner :—A small incision was made with a lancet through the integuments at the lower margin of the abscess. A long curved trocar was then introduced, and brought out at the upper part. The tubing was next fastened to the hook on the point of the trocar and withdrawn through the canula. The canula was then removed, and the ends of the tubing fastened together.

Mr. Croly observed to the class the advantages of this mode of treating chronic abscesses, of which they have had from time to time several examples. He directed their attention to the precaution necessary to be observed in introducing the trocar to avoid the risk of wounding a vessel in the abscess. This is to be prevented by withdrawing the point of the trocar into the canula when passing it through the abscess.

These cases have progressed most favourably since operation.

RICHMOND SURGICAL HOSPITAL.

Cases under the care of Mr. W. STOKES.

(Reported by Mr. THOMAS ALLMAN.)

STRANGULATED FEMORAL HERNIA OF UNUSUAL FORM AND SIZE : OPERATION WITHOUT OPENING THE HERNIAL SAC : RECOVERY.

To those interested in determining the vexed question as to the propriety or impropriety of opening the hernial sac in operations for strangulated hernia, the following case will probably be of considerable interest.

Mary Dunne, æt. 40, was admitted into Mr. Stokes' wards in the Richmond Hospital, on the 22nd ult., suffering from strangulated femoral hernia. The patient stated that she first observed a tumour about the size of a marble in the right groin about ten years ago. Two years from the present date it increased suddenly very much in size, which the patient attributes to a kick which she got a little below the umbilicus. She never experienced any difficulty in reducing the tumour until the day she sought for admission to the hospital. She stated that while running after a coal-cart (a little before one P.M., on the 22nd ult.), she felt a sudden pain in the groin in the right side, the situation of the hernia, and on trying to reduce the latter was unable to succeed. Shortly after two P.M. the patient was brought into hospital suffering great pain, and vomiting frequently. A full opiate and a warm hip-bath were first given, and the taxis having then been tried, and without success, Mr. Stokes was sent for.

On examination, a very large hernial tumour was found in the right groin, oval in shape, and somewhat constricted in the centre, giving it an hour-glass appearance, and extending from about an inch and a quarter internal to the anterior superior spine of the ilium down into the labium. From the large size, the peculiar form, and the extension of the tumour down into the labium it appeared at first sight to be an inguinal hernia. On careful examination, however, the conclusion arrived at was, that it was a femoral hernia of most unusual form and dimensions. This opinion was found at the operation to be strictly correct.

Shortly after Mr. Stokes' arrival, about six P.M., the taxis was again tried, this time the patient having been brought fully under the influence of chloroform. The attempt, however, was unsuccessful. Directions were then given to administer a second opiate, a tobacco enema, and to keep the patient in a full hot bath for twenty minutes, and after this to try the taxis again. After these directions were carried out, the tumour was found quite as tense as at first, and at 9.30 P.M., the pain in the tumour and abdomen getting worse, and the vomiting continuing, operation was decided upon. The hernia had at this time been strangulated nine hours and a-half. The operation was then performed in the ordinary manner, and the stricture having been divided, the hernia was returned without any difficulty, care having been taken not to open the peritoneal sac.

Shortly after the operation the patient got a full opiate, after which she slept well.

May 23rd.—Suffering much pain in lower part of abdomen, also frequent tendency to retching.

These symptoms were effectually arrested by a mixture contaning sol. muriate of morphia, hydrocyanic acid, and spirit of nutmeg, in cinnamon water.

24th.—Wound looking healthy ; dressed with carbolic acid lotion ; bowels not yet moved ; ordered a full enema.

26th.—Patient had two motions from the bowels to-day ; is free from all pain and uneasiness. Appetite good. Wound healing rapidly.

June 4th.—Wound is perfectly healed ; bowels regular. Patient to return home the following day.

In some clinical remarks on this case, Mr. Stokes observed that the question of opening or not opening the sac in operations for strangulated hernia, is one of the greatest importance, and one about which there is the

greatest difference of opinion among practical surgeons. Hitherto the practice in the Richmond Hospital has been to open the sac in all cases, and the results have, doubtless, been excellent. Recent statistics, however, appear to show the desirability of performing the operation for strangulated hernia, without doing so. From the observation of a considerable number of cases in the Meath Hospital in which the sac was not opened, Mr. Stokes had also come to the conclusion, that at all events when the strangulation was recent, the safest practice was not to open the sac. This was also the opinion of the late Professor Schuh, of Vienna, who published a memoir on "Hernia," of the utmost surgical value.

When the strangulation is recent there can be little danger of ulceration from pressure, producing perforation of the intestine, or of gangrene of the intestine; and if, after the stricture is divided, the surgeon on returning the hernial tumour into the abdomen, *experiences the peculiar gurgling sensation usually felt in the reduction of herniæ, he may be quite sure that no stricture exists within the sack to interfere with the circulation of the part.* In all cases, therefore, of strangulated herniæ, for which operation is demanded, the rule, in Mr. Stokes' opinion, to follow should be, not to open the sac if the strangulation be recent, but if it be not recent, to open the sac and examine carefully the condition of the intestine before returning it into the abdomen.

KING'S COLLEGE HOSPITAL.

Cases under the care of Dr. BEALE, F.R.S.

(From brief Notes by Dr. TONGE.)

(Continued from page 501.)

ACUTE RHEUMATISM.—Emma M., æt. 28, St. J. H., probationer. Admitted April 11; discharged June 3. In hospital 53 days. *Recovery.* Second attack; first 14 years ago. Previously ill, 4 days. Right ankle and knee and left ankle and knee affected successively. All these joints very painful and swollen on admission. Breadth of cardiac dulness increased. Systolic friction sound over heart; sometimes to and fro. Pulse 100. Respiration 36. Slight sweating. Hips afterwards painful. Free from pain on 20th day.

Bicarbonate of potass and decoction of bark, and quinine and opium. After 20th day dilute muriatic acid and bark, and bicarbonate of potass powders. Brandy 4 oz. E. L. to left knee.

ACUTE RHEUMATISM.—J. B., æt. 16, printer. Admitted April 22; discharged May 28. In hospital 36 days. *Recovery.* First attack. Previously ill, 3 weeks. Left elbow, right shoulder, hips, right knee, right ankle, left knee, and left ankle successively attacked. On admission, knees, ankles, and left elbow painful. Profuse sweating. Tongue furred. Pulse 80. On 49th day systolic bruit at base of heart. Free from pain about 56th day.

Bicarbonate and nitrate of potass and decoction of bark (20 days). Decoction of bark (5 days). Then iodide of potassium and bicarbonate of potass. Aperients.

ACUTE RHEUMATISM.—Mary A. G., æt. 31, married. Admitted July 2; discharged July 30. In hospital 28 days *Recovery.* First attack. Winter cough 5 years. Previously ill, 3 weeks. Knees, ankles, shoulders, elbows, and wrists successively affected. On admission, free sweating. Right shoulder and wrist, ankles and feet painful and tender. Tongue white. Physical signs of emphysema. Free from pain on 44th day. Heart unaffected.

Bicarbonate of potass for two days before admission; same, with Dover's powder. Afterwards bicarbonate of potass, aromatic spts. of ammonia, and liq. cinchonæ. Aperients.

ACUTE RHEUMATISM.—W. F., æt. 32, brass-founder. Admitted November 3; *died* on November 10. In hospital 7 days. Second attack; first 12 years ago. Previously ill, 5 days. Heels, feet, and ankles, knees, hips, shoulders, elbows, and wrists successively affected. On 10th day, profuse sweating. Tongue thickly coated. Pulse 126. Respiration 44. Cardiac dulness slightly increased; loud to-and-fro sound over heart. Bronchial breathing at base of right lung. Sleeps badly, and is somewhat delirious. On 11th day, dulness and bronchial breathing over both posterior bases. Trace of albumen in urine. On 12th day, breath shorter; rub over whole of heart. Died suddenly on 13th day.

Bicarbonate and nitrate of potass and decoction of bark (2 days). Then same, with liq. ammon. acetatis. Brandy 4 oz. Mercurial ointment and opium over heart. Turpentine stupes to chest.

ACUTE RHEUMATISM.—Kate B., æt. 12. Admitted November 2nd; discharged December 17th. In hospital 45 days. *Recovery.* Pain in præcordial region and shortness of breath, 14 days; cough 3 days; systolic bruit at heart's apex; tongue coated. On ninth day after admission pain and swelling of right knee and ankle, left knee and ankle, and joints of arms afterwards affected. Five days later, pulse 126; respiration 44; much præcordial pain. Three days later, friction sound at heart's base (6 days). Six days later, almost free from pain; bruit still distinct; pulse 80.

Decoction of bark (10 days). Then bicarbonate of potass and aromatic spts. of ammonia; opiates at night; quinine and opium. After 28th day in hospital aromatic spts. of ammonia, and decoction of bark; brandy 6 oz.

ACUTE RHEUMATISM.—J. C., æt. 33, blacksmith. Admitted August 15. *Died* August 26. In hospital 11 days. Fifth attack; first 12 years ago. Previously ill 3, days. Back, hips, knees, ankles, right hand, left hand, left shoulder, and back of neck affected in turn. On admission pain as above, except in back and left hand; profuse sweating; jaundice; tongue white; breath short, 44; pulse 108; bases of lungs dull; sibilus all over chest; area of cardiac dulness increased; sounds distant; faint systolic murmur at apex. On 5th day great distress of breathing; loud pericardial rub; delirium; no jaundice. *Post-mortem*—Left lung carnefied at base; right lung hepatised; large deposit of recent lymph on heart; valves healthy.

Aromatic spts. of ammonia and bicarbonate of potash; opium; brandy 12 ounces.

ACUTE RHEUMATISM.—Jane A., æt. 14. Admitted October 6; discharged November 5. In hospital 30 days. *Recovery.* Third attack; first 8 years ago; second 2 years ago. Previously ill, 8 days. Right ankle, left ankle, knees, hips, shoulders, elbows and wrists affected successively. On admission shoulders, elbows, and wrists painful; systolic bruit at heart's apex; pulse 116; respiration 36; free sweating; tongue furred. Free from pain on 22nd day.

Bicarbonate of potass, aromatic spts. of ammonia, and chloric ether (5 days). Same with liquor cinchonæ (18 days). Then dilute hydrochloric acid, chloric ether, and liq. cinchonæ. Dover's powder; aperients.

ACUTE RHEUMATISM.—W. A., æt. 22, grocer. Admitted December 17; discharged December 31. In hospital 14 days. *Recovery.* Second attack; first 9 years ago. Previously ill, 4 days. Pain in præcordia, right shoulder, left shoulder, right knee, left knee, right ankle, left ankle, and right wrist and hand successively. On 7th day ankle, knees, right shoulder, hand, and wrist painful; moderate sweating; tongue white; pulse 92; heart sounds distant; convalescent on 14th day.

Bicarbonate of potass, carbonate of ammonia, and chloric ether (6 days). Same with liq. cinchonæ (6 days). Same without pot. bicarb. (2 days). Opiates; aperients.

ACUTE RHEUMATISM.—G. G., æt. 30, coachman. Admitted March 9, discharged May 7; in hospital 59 days. *Recovery.* First attack. Three weeks ago pain in right heel and instep (4 days). Previously ill, 4 days. Right foot, left arm and leg, back, right temporo-maxillary joint, left ankle, ball of left great toe and hips affected successively. Profuse sweating. Tongue furred. Much pain in chest on 11th day. Free from pain on 16th day. On 26th day fresh pain in right shoulder, elbows, and præcordia. Pulse 100. Rub over heart on 31st day, and soft systolic

bruit at heart's base on 41st day. Finally free from pain on 56th day.

Bark and bicarbonate of potass (20 days); iron and calumba (1 day); bicarbonate and nitrate of potass and bark; afterwards iron.

SUBACUTE RHEUMATISM.—A. P., æt. 18, compositor. Admitted August 18; discharged August 30. In hospital 12 days. *Recovery.* Second attack. Pain in chest 1 month. Previously ill 14 days. Left ankle and knee tender and painful. Free sweating; loud systolic bruit at heart's apex (old).

Bicarbonate of potass and aromatic spts. of ammonia.

SUBACUTE RHEUMATISM.—J. A. S., æt. 21, gilder. Admitted March 5; discharged March 11. In hospital 6 days. *Recovery.* Previously ill, 2 days. Pain, redness, swelling, and tenderness of ankles; loss of appetite; tongue furred; free sweating. Free from pain on 5th day. Heart unaffected.

Bicarbonate of potass and decoction of bark (3 days). Then same with sulphate of iron.

CHRONIC RHEUMATISM.—G. P., æt. 32, clerk. Admitted July 30; discharged August 13. In hospital 14 days. *Recovery.* In King's College Hospital for chronic rheumatism last year. Previously ill, 3 days. Pain in left hip, right hip, and left ankle and foot successively; no redness or swelling; appetite bad; tongue clean. Pulse 68.

Iodide of potassium, bicarbonate of potass, and liquor cinchonæ.

CHRONIC RHEUMATISM.—Mary W., æt. 76. Admitted February 22; discharged March 26. In hospital 33 days. *Relieved.* Rheumatic pains in wrists and finger-joints, 1 year. Senile debility.

Aromatic spts. of ammonia, chloric ether, liquor cinchonæ, and bicarbonate of potass. J. P. to fingers.

RHEUMATIC INFLAMMATION OF ELBOW.—Maria D., æt. 22, servant. Admitted March 31; discharged April 25. In hospital 25 days. *Relieved.* Previously ill 14 days. Right foot, left knee, right hand, and left elbow affected successively. On admission, left elbow red, swelled, tense, and painful; œdema extending up and down arm; tongue furred. No other joint affected. Alkalies.

MUSCULAR SPASM.—Elizabeth W., æt. 13. Admitted March 29; discharged April 9. In hospital 11 days. *Recovery.* Previously ill, 1 day. Feet turned in; hands contracted; thumbs drawn into palms; slight pain in muscles of calves. Well 2 days later. Had a similar attack 3 months ago, well in 4 days. Castor oil, tinct. opii., mxx. h.s.s.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 17, 1868.

SPECIALISM.

THOSE who pursue our noble calling with a single eye, cannot escape from a feeling of poignant regret at the divisions which continually arise and give occasion to the criticisms of the public. We admit freely that to be a doctor in the good old sense, is a far superior thing than to be a pure specialist as this word is too commonly understood. But extremes meet. It has become the rage to pander to the ignorance or the prejudice of the public or of a section of the profession, and there lives and thrives amongst us a class of men that deserves but scanty respect.

Looking at this class with a feeling of indignation, and ever ready to attack it, some have been so far led away as to confuse with it a far superior class, and to utter denunciations that savour of personal irritation or of thoughtless arrogance. Few things can be more absurd in the present day than to maintain that any one intellect is capable of grasping the whole range of all the sciences, and of applying all their principles to every individual case of disease. Yet this is what the campaign against specialism, so persistently waged by some of our contemporaries, is leading to. They would seem to assert that there can be no case calling for special knowledge, that he who devotes his life to the elucidation of one set of phenomena cannot be more informed respecting such phenomena than he who, with a large ambition, attempts to grasp the whole of nature's laws.

We demur to such a proposition. Still more do we grieve that it should be maintained by the most unworthy, if not the most worthless, arguments and assertions that have ever disgraced the annals of our art. We are, perhaps, unfortunately deeply imbued with the honour of our profession, and when its principles or its practice are dragged in the mire to serve the purpose of the purveyors of claptrap, we cannot but feel that there is great danger lest the assertions of dogmatic sensationalists should be received as the echoes of professional opinion. For this reason we are constrained once more to take up the gauntlet on behalf of the much maligned specialists, who are so obnoxious to some of our contemporaries. In doing so, we can scarcely repress our impatience at the marvellous impudence with which the war against specialism has been carried on. No insinuation has been too repulsive, no accusation too dark, to be hurled at the heads—not of one or two who richly deserve all that can be said,—but of hard-working, honourable men who, because forsooth, they have most studied one branch of the art of healing are to be held up to scorn as mere specialists—whatever that term is meant to imply, and who are to be placed, if possible, outside the professional pale.

As well may the accomplished accoucheur be ignored as an ignorant midwife, the skilful surgeon as a mere butcher.

Operative surgery is, as all admit, a great art in which some few peculiarly excel, and others, having large opportunities, are greatly experienced. The same may be said of many other branches of the profession.

Division of labour has been recognised by the public as essential to excellence, and the profession itself has endorsed the verdict. We have come to see that it may lead to advancement in science and practice, and the fierce denunciation of its extremes will only produce a stronger reaction in its favour. Let us then meet the facts honestly and openly, and not be carried away by selfishness or thoughtlessness.

Let us not be misunderstood. Personally, we have no sympathy with excessive subdivisions of the field of study. We have no desire to see arise amongst us, a generation of men restricting their ideas to a narrow sphere, and letting their minds be "cribbed, cabined, and confined," by contracting them within the smallest possible compass.

We know well enough the tendency that exists in human

nature to keep its best efforts for the field which possesses most interest, and, therefore, we have no desire to see *all* our noblest minds rigidly confining their ideas to any branch of science or practice. Nevertheless, since no single intellect may grasp all knowledge, we are content that most should forego much for the sake of attaining excellence in some one or more departments. Is it not thus that the profession as a whole acts? Do we ask that a great physician should be a great astronomer, or geologist, or mathematician, or linguist, or logician, or even physicist? We have admitted practically that he need not be a great chemist, or even physiologist.

We look outside the range of the physician for progress in these sciences, and surely they much concern him. He is but too glad to avail himself of the labours of those who devote themselves to them. Still more, we have in our great towns separated medicine, surgery, and midwifery almost as completely as possible. Why, then, should some further subdivision shock all the proprieties and enrage the advocates of things as they were? Honestly followed, any branch of our profession affords ample scope for study, and if, as we admit, our art as a whole is a still nobler study, and tends still more to enlarge our minds; as a noble whole cannot be made up of ignoble parts, so we are reluctant to admit that the specialist is to be despised; and we offer our solemn protest against the flippant slander that has lately been too constantly levelled against men whose only crime seems to have been that they successfully cultivated one branch of an art, while others—more ambitious, and therefore desirous of excelling in all—as signally failed.

THE VOTING CLAUSES IN THE SCOTCH REFORM BILL.

When our number last week came into the hands of its readers, the article on this subject might seem a day too late, as the debate had then been closed and the vote taken. We are glad that the most unjust part of the proposal was rejected without much delay, though we have reason still to confess to dissatisfaction.

We think it right to recur to the subject, since it is only just to report that Mr. John Stuart Mill led the opposition to the clause against which we most protested. He pointed out most forcibly the manner in which half, or more than half, the University constituency might thus be disfranchised, and to him, therefore, belongs the credit of the victory gained on that occasion.

At the same time, that debate illustrates most forcibly the inability of Mr. Lowe to appreciate a truly liberal view or to sympathize with university constituencies. It is strange that a gentleman of his undoubted ability, and one who aspires to represent the University of London, should have twice returned to the assault against Mr. Mill's amendment, and urged all sorts of idle pleas for obstruction. Nothing could so fully demonstrate Mr. Lowe's utter unfitness for the post he seeks. Let the plan he sought to inculcate be enforced, and the consequence would be to create such a constituency as would, within a few weeks, lead to a cry for a reform of it being urged. If a man is to possess a vote at all, nothing can be more inconsistent than to fence it round with a series of restrictions that deprive it of all its value. Giving with one hand and taking away with another, is a process that the graduates of the London University would do well to remember when Mr. Lowe seeks their support, that he strongly justified in the case of the Scottish Universities We have before had occasion to point out emphatically the disqualifications of Mr. Lowe to represent any university, but this last escapade evinces a greater perversity, or a great obliquity of vision, than we had hitherto given him credit for. It ought to determine London University men on finding one of their own graduates (a medical one would be best), or at least a representative of the scientific world, instead of accepting a political notoriety.

THE CARMICHAEL PRIZES.

The *Medical Times and Gazette* is responsible for the publication, in its last issue, of a letter which, while giving expression to very serious charges against the Council of the Royal College of Surgeons in Ireland, in respect of the recent award of the Carmichael prizes, makes statements which are not only utterly devoid of truth, but which display complete ignorance on the essential points of the indictment. On this letter and on apparently insufficient inquiry or consideration, our contemporary basis a leading article, in which it authoritatively adopts not only the tone but the facts of its correspondent's communication. The writer firstly objects to the adjudication on the ground that Dr. Mapother, one of the successful competitors, is a Member of the Council who, as the writer says, are the adjudicators. The real truth is that the Council at large, although nominally the arbitrators, appointed three of their number to be judges, with instructions to examine and to decide upon the merits of the various essays. A fictitious signature was appended to each essay, and while no Member of Council except this committee of three ever saw these treatises not even the judges themselves could have had the least idea of the authorship of each. It happens that Dr. Mapother's essay (being intended by its author for subsequent publication, whether it might be selected for the prize or not) was presented to the judges in the form of a printed slip, so that, in fact, they had not even the hand-writing of its author to suggest to them his identity, nor were the Council aware that Dr. Mapother intended to compete, or had competed, until the envelope containing his name was opened at the public meeting, after the award had been decided. Thus the insinuation of corruption in the Council, so readily adopted by the *Medical Times and Gazette*, turns out to be impossible and untrue.

There was no restriction whatever in Mr. Carmichael's will excluding Members of Council from the competition for the simple reason that, under the bequest, the arrangement for the award made it impossible that the arbitrators should know beforehand who were the competitors. In point of fact, Dr. Mapother competed for the prize, and, as he justly merited, obtained it, in his private capacity, nor did his position as councillor in any respect militate in his favour, the fact of his being a competitor being studiously concealed.

The correspondent of the *Medical Times and Gazette* proceeds to say that the Council of the Royal College of Surgeons having advertised a first prize of £200, and a second of £100, awarded £400 and £200 instead to each prize respectively. This statement is untrue in substance and in fact, and the *Medical Times and Gazette* recognises it as incorrect, and yet permits it to go forth through its columns.

The Council has power, under Mr. Carmichael's will, to double the amount if (in consequence of the award not hav-

ing been made for any one year) the interest on the original bequest should be doubled. That power is confided to the Council according to the terms of Mr. Carmichael's will, "at its discretion," but it has not as yet availed itself of the privilege, nor is its course of action in the matter yet determined.

The Council has, while desiring to discharge the trust confided to it in awarding the prize to the best essay, endeavoured most carefully to avoid the suspicion of bias, and it is, therefore, greatly to be regretted that a journal enjoying the character for moderation and equity which the *Medical Times and Gazette* has possessed, should not only give publicity to incorrect and prejudiced statements, but should, without sufficient consideration, adopt them as facts.

NOTES ON THE ABYSSINIANS.

NOTWITHSTANDING the prominence recently given to everything Abyssinian by the successful expedition of Sir Robert Napier, and the tragical death of King Theodore, little has been set before the public regarding the domestic life and personal habits of this ancient and interesting nation. Perhaps the best information on these subjects may be had from a book, published in London in 1853 by Mr. Mansfield Parkyns, and entitled "Life in Abyssinia, being notes collected during three years' residence and travels in that country."

The second volume of this work is largely devoted to the inner life of the Abyssinians, and chapter xxviii., on their personal appearance, dress, &c., furnishes the medical reader with much that is interesting, and not generally known.

Their mode of dealing with the hair is thus described, the "quarry" mentioned by Mr. Parkyns being a modification of the ancient Roman *toga*, which is a national costume in Abyssinia :—

"In general, neither sex wears any covering on the head preferring to tress and butter that with which nature has provided them. The hair of the Abyssinians is admirably adapted for this purpose, being neither short and crisp like a negro's, nor yet of the soft elasticity of a European's, but between the two; sufficiently long to tress well, and even often to hang luxuriantly over the shoulders, but at the same time sufficiently woolly to prevent its being liable to come out of plait as soon as it is done, which ours always does. I had the greatest bother in the world with mine. In the first place, it required twice as much pulling as anybody else's, otherwise it would not have remained a moment in its place; and then it had to be tied at the ends and stuck with a 'fixature' of boiled cotton-seeds; and after all, it never lasted in plait more than a week.

"The operation of tressing is a very tedious one, usually occupying an hour or two per head; therefore, of course, it is repeated as seldom as possible: by some great dandies once a fortnight; by others once a month, or even less frequently. In the interim large supplies of fresh butter are employed, when obtainable, in order to prevent the chance of a settlement of vermin; and a piece of stick, like a skewer, is used for scratching. The hair is gathered in plaits close over the whole surface of the head, the lines running fore and aft, and the ends hanging down in ringlets over the neck. In both sexes the patterns chosen are various. Some will have only five or seven plaits, while others will prefer as many as thirty or more. Some again have the whole of the head tressed backwards; others wear the front part plaited towards the sides, with the ends hanging over the temples. Formerly young soldiers were not allowed to tress their hair until they had killed a man, when they shaved the whole of the head, leaving only a single plait; another was added for each man killed, till they had reached the fifth, when they were privileged to wear a whole head of hair. Now-a-days, excepting in some of the remote Galla districts, the number of tresses depends on the age of the wearer rather than on his prowess. Youths and young women usually shave the crown, like a priest; while mothers and full grown men tress the whole. Some ladies have their butter daubed on nicely, and then some scent; but the great 'go' among the dandies is to appear in the morning with a huge pat of butter (about two ounces) placed on the top of the head, which, as it gradually melts in the sun, runs over the hair down the neck, over the forehead, and often into the eyes, thereby causing much smarting. This last ingression, however, the gentleman usually prevents by wiping his forehead frequently with his hand or the corner of his 'quarry.'

"As may be imagined, the dresses neither of the women nor men are long free from grease; but this, especially among the latter sex, is of no importance: indeed, many young men among the soldiery consider a clean cloth as 'slow,' and appropriate only for a townsman or a woman. These never have their quarries washed from one St. John's day to another: even the young Prince Shétou is more often seen in a black quarry than a white one."

The process of tattooing appears to be not uncommon among them, and gives rise to a profession in itself, devoted to the daily pursuit of this practice. The Abyssinian practice, in this respect, seems to resemble that of the South Sea Islanders, and is thus described :—

"The Tigrèan ladies, and some men, tattoo themselves, though, as this mode of adorning the person is not common excepting among the inhabitants of the capital and persons who have passed some time there, I should judge it to be a fashion imported from the Amhára. The men seldom tattoo more than one ornament on the upper part of the arm, near the shoulder, while the women cover nearly the whole of their bodies with stars, lines, and crosses, often rather tastefully arranged. I may well say nearly the whole of their persons, for they mark the neck, shoulders, breasts, and arms, down to the fingers, which are enriched with lines to imitate rings, nearly to the nails. The feet, ankles, and calves of the legs, are similarly adorned, and even the gums are by some pricked entirely blue, while others have them striped alternately blue and the natural pink. To see some of their designs, one would give them credit for some skill in the handling their pencil; but, in fact, their system of drawing the pattern is purely mechanical. I had one arm adorned; a rather blind old woman was the artist; her implements consisted of a little pot of some sort of blacking, made, she told me, of charred herbs; a large home made iron pin, about one-fourth of an inch at the end of which was ground fine; a bit or two of hollow cane, and a piece of straw; the two last-named items were her substitutes for pencils. Her circles were made by dipping the end of a piece of cane of the required size into the blacking, and making its impression on the skin; while an end of the straw, bent to the proper length, and likewise blackened, marked all the lines, squares, diamonds, &c., which were to be of equal length. Her design being thus completed, she worked away on it with her pin, which she dug in as far as the thin part would enter, keeping the supply of blacking sufficient, and going over the same ground repeatedly to ensure regularity and unity in the lines. With some persons, the first effect of this tattooing is to produce a considerable amount of fever, from the irritation caused by the punctures; especially so with the ladies, from the extent of surface thus rendered sore. To allay this irritation they are generally obliged to remain for a few days in a case of vegetable matter, which is plastered all over them in the form of a sort of green poultice. A scab forms over the tattooing, which should not be picked off, but allowed to fall off of itself. When this disappears, the operation is complete, and the marks are indelible; nay, more, the Abyssinians declare that they may be traced on the person's bones even after death has bared them of their fleshy covering."

There are various customs connected with the births, deaths, and marriages, and medical superstitions of this people, which we hope to notice in future numbers of this journal.

Notes on Current Topics.

The Public Health.

As usual, we quote from the weekly return of the Registrar General, which shows that there were registered in London and 13 other large towns of the United Kingdom, 4353 births and 2664 deaths during the week that ended on Saturday, June 6th. The annual rate of mortality

was 22 per thousand persons living; being 19 per thousand in London, Edinburgh, Bristol, and Newcastle-upon-Tyne; 29 in Salford, Bradford, and Glasgow; 25 in Dublin; 17 in Birmingham; 26 in Liverpool; 23 in Manchester; 24 in Hull and Sheffield; and 21 in Leeds.

In London the deaths registered during the week were 1160, being 89 less than the estimated number.

The deaths from zymotic diseases were 293. Sixteen deaths from small-pox, 60 from measles, 41 from scarlatina, 12 from diphtheria, 47 from whooping-cough, 34 from fever, and 27 from diarrhœa were registered.

A leather dresser, aged 50, died of "choleraic diarrhœa, 24 hours;" 3 persons died from intemperance; 2 from delirium tremens; 5 infants and 2 adults from syphilis; 3 children from burns and scalds; 12 persons from drowning; 4 infants and 1 adult from suffocation; 7 persons committed suicide; and 7 were killed by horses or carriages in the streets.

Health of Bombay.

In his report for 1867, Mr. Hewlett, the health officer for this city, states that the deaths registered during that year amounted to 15,500, being 19 to every 1000 of the population. This proportion is considerably less than in either of the three preceding years, and shows that there has been a great improvement in the public health since 1865. The deaths from the principal epidemic diseases in 1867 were:—Cholera 111; measles 24; fever 5674; and small-pox 1055. Of the latter, as many as 836 were children under 9 years of age, which may be accounted for, probably, from the fact that vaccination is not compulsory there. The mortality per cent. of the different castes or races is given, among which that of the Indo-Europeans shows favourably, being less, with two or three exceptions, than any of the others.

London College of Physicians.

Last Wednesday the annual *soirée* of the College was held, when most of the eminent physicians and surgeons of London, and other distinguished persons, were present. Dr. Alderson, the president, Dr. Farre, and Dr. Wegg, introduced the visitors. Many objects of interest were exhibited on the occasion, among which were type-writing and ice-making machines, microscopes, and microscopic specimens of various kinds, a magneto-electrical machine specially arranged for medical purposes, panoramic and stereoscopic slides, photographs, especially views taken in Abyssinia, as well as exhibitions in other departments of science and art, which drew the attention and added to the enjoyment of the company.

The Election of Council of the Royal College of Surgeons of England.

The four vacancies in the Council to which the elections will shortly take place will be contested by no less than nine competitors. Sir W. Fergusson, Mr. Partridge, Mr. Erasmus Wilson, Mr. Charles Brooke, Mr. Gay, Mr. Luther Holden, Professor Humphry, of Cambridge, and Mr. George Cooper. Sir William Fergusson will almost of necessity be one of the four, while Mr. Partridge and Mr. Erasmus Wilson are regarded as probable successors to other seats. The fourth will be anxiously disputed—Professor Humphry for the provincial Fellows, Mr. Holden for St. Bartholomew's, and Mr. Brooke, Mr. Gay, and Mr. Cooper on their own very decided merits.

Small-pox Hospital.

The Medical Officers of this institution have just issued their annual report, from which it appears that the epidemic of small-pox, which has now extended over more than five years, still continues. The admissions to the hospital were fewer last year than in 1866, but still with that exception the number was larger than in any previous year since its foundation. In the five years 1863-7 the yearly average number of admissions was 1463. Last year the number admitted was 1626. During 1867 the proportion of vaccinated cases was 84·1 per cent., and the deaths reached 206, being in the proportion of 12 per cent. of the admissions. In all London the deaths from this disease amounted to 1332 in that year. After deducting all expenses the funds of the hospital show a balance of £918 in its favour.

Metropolitan Asylum Board.

On Saturday, the 6th inst., a meeting of this Board was held to consider the mode of erecting the proposed new hospitals at Hampstead. It was decided that accommodation should be provided for 104 fever patients, and that there should be arrangements for small-pox wards on the adjoining ground, though it was resolved that there was no present need for such an addition to the building. The extent of the wards is to be 2000 cubic feet, and the size of the bed-rooms 180 superficial feet.

Adulterations.

Leave was given to Mr. Dixon on the 9th instant to bring in a bill, which was read the first time in the Commons, to amend the "Act for Preventing the Adulteration of Food and Drink, 1860," and to extend its provisions to drugs. The bill, he said, would increase the penalties, extend the provisions against adulterations to the manufacturers of articles containing adulterations prejudicial to health, make the appointment of analysts obligatory, and provide for the appointment of a public officer to undertake prosecutions against offenders under the Bill.

Monstrous Birth.

The Berlin journals give an account of a remarkable monster of which the wife of a joiner at Schkeudnitz has been delivered on the 26th of May. It was a still-born child, apparently of normal length, but with a somewhat large thorax. Between the shoulders two well-formed and shaped heads are to be seen, covered with hair; the features are well wrought, each head being on a rather long but strong neck, and between the two necks a third arm projects, which is somewhat bigger than the two normal arms; the hand of that arm has two thumbs in an opposite direction, producing the impression of two arms having been united in one. One day before delivery, all the signs of a living fœtus had been observed. The mother had borne several healthy children, and in this instance too the time of pregnancy was perfectly normal.

The Female Obstetricians and Dr. Eastlake.

The cross-actions between Dr. Edmunds and Dr. Eastlake, which have arisen out of the removal of Dr. Eastlake from the office of Physician to the British Lying-in-Hospital, are expected to come before the Courts to-day and, no doubt, the excitement not only of the personal quarrel but on the general question of female medical practice will run high. The facts will be in the remembrance of our

readers. Dr. Eastlake complained to the Governors of the British Lying-in-Hospital that one of the training midwives surreptitiously applied instruments to a patient under his care. The Governors, instead of discharging or seriously censuring the nurse, called for Dr. Eastlake's resignation, and that gentleman avers that the opportunity was seized by a certain party connected with the Female Medical College to expel him, because he had objected to a proposed amalgamation of the College with the Lying-in-Hospital, and Dr. Edmunds constitutes himself the mouthpiece of this party.

It is not for us, in the present state of the controversy, to do more than state facts. We may, however, say that, as far as the profession is as yet informed, Dr. Eastlake's cause is considered to deserve their entire sympathy.

Medical Muscularity.

THE Olympian games of the London Medical Students have been entirely successful this year. For the second anniversary of the United Hospitals' Athletic Club, which was celebrated on Thursday and Friday last, we may say that the prizes were worthy of the object, and the contests worthy of the prizes. This movement, of which we have already expressed our entire approval, appears to receive a very real support from the heads of the profession who do not consider that play is by any means incompatible with industry. Sir Thomas Watson presented a handsome bronze clock as a prize for the quarter mile race, and Dr. Owen Rees a fine silver cup for the 120 yard contest. Amongst the spectators were Sir Thomas Watson, Mr. Solly, Drs. Sieveking, Chambers, Barnes, Durham, Croft, and others, whose presence may be taken as an approval by their seniors of the students' movement. The remaining races of 880, 440, and 50 yards take place at Teddington on Wednesday, July 1st.

O'Sullivan v. the Limerick Guardians.

THE action taken by Dr. O'Sullivan, the ex-Medical Officer of the Limerick Union, against the guardians for wrongful dismissal, is on the cause-list for this term, and will probably give rise to much medico-religious controversy. The matter has been already noticed at length in our columns some months ago. It arose out of a contest for pre-eminence between the Sisters of Mercy, who were placed in charge of the Union Hospital, in the capacity of nurses, and Dr. O'Sullivan. A series of charges and countercharges, and of enquiries thereon, resulted in Dr. O'Sullivan's dismissal, which that gentleman alleges to have been illegal. The point at issue will be whether Dr. O'Sullivan was appointed as *Resident* or *Assistant* Medical Officer—a distinction which carries with it a summary power of dismissal. Dr. O'Sullivan depends on the wording of the advertisement on which his appointment was made, while the guardians declare that he was an assistant, and acted as such. The question is at bottom a religious controversy, with which we have no wish to soil our columns.

THE renowned Professor Traube has not been able from ill health to continue his lectures and practical demonstrations for a long time, during which he tried to restore his health in the sunny clime of Italy. But feeling, after his return, that he was not able to resume his duties, his wards at the Charité and Lectureship have, provisionally, been conferred on Dr. C. Westphal.

ON the 1st inst., Dr. Volkman, of Elbeig, Western District of Prussia, fell a victim to typhoid fever. He was Physician to the Fever Hospital erected during the prevalent epidemic, and had 200 patients under his care, of whom a very large majority had recovered.

SOME rumours having been current at Berlin, that cases of cholera have occurred in that city, the official press contradicts the truth of the rumour, but advises at all events to begin disinfection of closets as much as possible, the prevailing heat being favourable to the productio n of cholera.

Summary of Science.

(Specially Edited and Compiled for the Medical Press and Circular.)

By C. R. C. TICHBORNE, F.C.S.L., Etc.

[The Editor of this Summary wishes it to be understood that he is not responsible for the ideas, theories, or the correctness of statements made in any of the papers quoted in the compilation.]

CRYOLITE.

MR. SAMUEL SIMES, in an Inaugural Essay published in the *American Journal of Pharmacy*, gives a history of this important mineral. It has been used commercially with such success, that it will require no apology to give a slight sketch taken from the above essay.

Small and scattered fragments of this mineral had been found from time to time at Miask, in the Ural mountains, but it was until lately looked upon as rare. Its occurrence in Greenland, the country from which it is obtained in immense quantities, is also limited as to situation, being lat. 61°, in long. 48° W. The main deposit of it here forms a mass about 6000 feet in length, and 200 feet in breadth, and of unknown depth.

Cryolite is a fluoride of sodium and aluminium.

$$3\,Na\,Fl + Al_2\,Fl_3$$

3 Na	= 69
2 Al	= 27·5
6 Fl	= 114
	210·5

As it is found it is in the form of a crystalline mass, having a special gravity 2·95, hardness 2·05. Large portions of it are often found perfectly colourless, and pure and unmixed with foreign matter, while other portions of it contain crystals of spathic iron ore and an ore of iron having a foliated structure—galena, copper and iron pyrites.

The main value of cryolite as a source of soda, alumina, and aluminium, is dependent upon the extraordinary purity that attends its proportions when used on the large scale in their industrial enterprises. The carbonates and hydrate of soda, when obtained by the ordinary processes, viz.—from the decomposition of salt, are always contaminated with more or less of the foreign salts remaining undecomposed from the processes through which they pass. With the cryolite the decomposition is so simple, the manipulations so few, and the ingredients which are used so pure in themselves, that no difficulty exists in obtaining these chemicals in quantities of hundred of pounds, and in a state of almost absolute purity—a purity that was before considered of impossible attainment in quantities greater than these which could be obtained in an analytical laboratory.

The cryolite is ground with six equivalents of carbonate of lime or slaked lime. This mixture is then exposed to a low red heat, with certain precautions, for two hours. The ash thus produced is allowed to cool, when it is placed in an iron tank and treated with hot water, until all the soluble matter is removed. The insoluble residue consists of fluoride of calcium, which, when dry, is an article of great value to metallurgists in reducing gold and silver ores, and as a flux for silicates. The solution consists of equal parts of aluminate of soda, and either carbonate or hydrate of soda, as one of the other forms of lime have been used. In order to separate the alumina and convert the soda into carbonate, a continuous stream of carbonic acid is passed through. In a few hours the absorption of carbonic acid is complete, and the alumina separates in the form of a fine granular powder, which is terhydrate of alumina. The liquor is evaporated to produce washing-soda, and the alumina is dissolved in boiling diluted sulphuric acid,

to form the tersulphate of alumina ($Al_2O_3 + 3SO_3$) having an excess of alumina always present. Sulphate of alumina as thus prepared is a white translucent substance, having the hardness and appearance of alabaster. On account of its basic properties, its small amount of iron, and its trifling cost, it is largely used by calico-printers, sugar-refiners, paper-makers, &c., who consume it in immense quantities.

Cryolite is also used for making aluminium.

The amount of cryolite imported into the United States in 1867, was 8000½ tons, a large quantity of which was used in the manufacture of "opaque white glass." The new porcelain as it has been called, resembles the finest French porcelain in appearance, and is used in making statuary, evaporating dishes, funnels, &c.

The cryolite mines belong to a Copenhagen Company. This company, during the summer of 1867, sent out 19 vessels having an average capacity of 450 tons. Two were lost on the ice. The approach to the coast is always considered dangerous on account of the immense fields of ice, which in hot weather are most likely to be met with descending from the northern latitudes. These form an impenetrable belt of upwards of 80 to 100 miles in width. If this icy belt was a continuous one during the open season, navigation would be as impossible in the northern latitudes as it is on the eastern coast, but off the western coast of Greenland the wind from the north scatters the ice, so that a good navigator availing himself of the opening, can sail in or out without delay. No loss of life has occurred as yet in this trade, as the ice affords a safe refuge for the crew until they are removed by the Esquimaux, or escape by their boats to the settlement. The mines are worked only during the summer season, from May to October, during which time 150 men are employed, and 6000 tons are employed in the manufacture of soda alone, which gives employment to over 500 hands.

CONVERSION OF CARBONATE OF AMMONIA INTO UREA.

Among the many curious reactions that have been lately noticed, none are more interesting than one mentioned by Professor Kolbe. M. Alex. Basaroff heats carbamate of ammonia in strong hermetically closed glass tubes to 130°—140°C. for a few hours. If the contents of the tube be afterwards heated in a water-bath the excess of carbonate of ammonia volatilizes, and pure urea remains. The author has since found that ordinary carbonate of ammonia when treated in the manner just described likewise yields urea. It is probable, however, that this carbonate of ammonia contains carbamate. This is the third process by which this interesting organic product can be made artificially.

POISONING BY MATCHES.

The Paris correspondent of the *Chemical News* (May 29th) cites a case of medico-legal chemistry which was tried at Marseilles. Lucifer matches, it was said, had been used in poisoning the victim. The chemist stated that he had failed to detect phosphorus (the body had been interred two years), as it was probably volatilized or oxidized long ago, but he concluded that matches must be present, because he found pieces of melted sulphur, which he exhibited. The question was then put, did he know that sulphur similar to that which he had exhibited was found in deposits of fecal matter which had undergone a certain fermentation in the air, and upon this point the finding of sulphur perfectly crystallized, and in concrete masses in the old deposits in the sewer of Montfaucon was cited; the specimens of sulphur here referred to are preserved in one of the public museums. Judging from the chemist's evidence, says the correspondent, he would appear to have argued farther than the experimental data justified him in doing. The prisoner was acquitted. Now, without entering into the merits of the case just tried, or the finding of sulphur in the sewers of Montfaucon, we are of opinion that it would be very difficult to induce any chemist to come to the conclusion that solid sulphur in lumps was deposited from the decomposition of human bodies, even in the space of two years, or to come to any other conclusion than that the sulphur, if found in the body, must have been taken in mechanically, as sulphur.

HYDRARGYRI IODIDUM VIRIDE B.P.

Mr. C. Wood has been investigating this compound, and finds that the green powder consists of—

Mercuric iodide HgI_2	28·6
Mercurious iodide HgI	58·4
Metallic Mercury	13·0
	100·

By constant trituration, the last portions of the metallic mercury reaches a fine state of division, and in this form the mercury possesses the blue colour so well-known in blue pill, which, mixed with the yellow of the mercurious iodide already formed, produces the greenish powder. But the true colour of the mercurious iodide is yellow, and to obtain pure mercurious iodide by the process given in the Pharmacopœia, the trituration should be continued until the green mass which forms becomes dry, and assumes a dull yellow colour.

SOLUBILITY OF XANTHINE (URIC OXIDE) IN DILUTED HYDROCHLORIC ACID.

In most of the works xanthine is said to be not soluble in hydrochloric or oxalic acid, and that it may be distinguished from cystine by this reaction, whilst Dr. Marcet (its discoverer), and Schlossberger, say that it dissolves freely in hydrochloric acid, and on cooling the combination is deposited in a crystalline form.

A portion of a calculus of this substance was examined by Dr. Bence Jones, with a view to determine this point.

It was distinctly soluble in diluted hydrochloric acid, even in the cold. It dissolved much more rapidly when heated, and on evaporating the solution to dryness, it gave most characteristic microscopic six-sided crystals, soluble in water. The author failed to reproduce artificially the crystals of xanthine; by dissolving it in urine slightly alkaline, no crystalline deposit formed on standing, or on evaporation. It is probable that these crystals are more likely to be found in the urine of children.

EGG-ALBUMEN.

Mr. J. Spiller, in remarking upon the fact that white of egg is used in the moist state as the standard of comparison in estimating the quality of potable waters, gives some statistics which are interesting from a physiological point of view.

A new-laid egg exhibits no cavity on breaking the shell, whilst a stale one always contains a considerable air-space from the evaporation of the water of the albumen through the shell; so that the white of egg contains variable proportions of albumen, according to the age of the egg.

The weight of a hen's egg was taken, and then supported upon a wire tripod-stand, so that the air might have free access. It lost exactly one grain in twenty-four hours, and this ratio of loss, by evaporation, remained tolerably constant during several days. It was noticed as an anomaly that a heavier shell permitted a faster rate of evaporation through its substance than the one first experimented with. The latter appeared, however, on inspection, to have a smoother external surface, and to be stronger and more compact in structure throughout.

It would be difficult to prove whether or not the water lost by evaporation from the white is partly compensated by an accession of water by diffusion from the yolk. No colouring matter travels outwards, says Mr. Spiller, unless an organic decomposition sets in, when all the natural barriers are destroyed, and the several parts of the egg become merged.

He is inclined to think that the redistribution of water actually occurs, since the sac of the yolk appears wrinkled in a stale egg, as though by loss of a portion of its liquid contents.

The composition of fresh egg albumen may be said to vary between the following limits:—

Water	88 to 85 per cent.
Dry albumen (containing nitrogen 1·55 to 1·75 per cent.) ...	12 to 15 per cent.

CHARACTERISTICS OF THE DIFFERENT VARIETIES OF CREOSOTE.

Beechwood creosote gelatinizes with its volume of collodion. Creosote from coal (carbolic acid) does not.

Wood creosote is insoluble in ammonia, and gives, with excess of potash, a turbid solution.

Carbolic acid from coal is insoluble in cold ammonia, but dissolves on the application of heat. It also gives a clear solution with weak liq. potassæ.

With a neutral solution of perchloride of iron, wood creosote dissolved in alcohol gives a green colouration, the coal-tar product, brown.

With aqueous solutions, on the contrary, coal creosote furnishes a blue.

IODHYDRIC ACID.

C. Winkler prepares this acid by passing a current of sulphuretted hydrogen through water containing iodine in suspension. The iodine is dissolved in bisulphide of carbon. Water is placed upon the top of this solution, and the sulphuretted hydrogen is passed through the bisulphide of carbon.

The hydriodic acid is dissolved in the water, whilst the sulphur remains dissolved in the bisulphide of carbon.

PRESENCE OF SULPHATE OF LIME IN FILTERING PAPER.

M. Krüger *(Jour. de Phar. et de Chim.)* draws attention to the large amount of sulphate of lime in filtering paper, which is due to chloride of lime used in bleaching the pulp. He does not think that the admixture is intentional, but is probably due to the action of the antichlor (hyposulphite of soda) upon the lime salts. He remarks that more attention should be paid to the washing of the pulp.

CARBONYLIC SULPHIDE.

An account of this body, taken from the *Ann. Ch. et Pharm.*, appears in the *Chemical News* of June 5th. This body is intermediate between carbonic anhydride and bisulphide of carbon. Its existence has been long foreseen. M. Thain has recently succeeded in forming it and in determining its properties. Into a cooled mixture of five volumes of concentrated sulphuric acid and four volumes of water, is placed as much sulphocyanate of potassium as will allow the mass to remain fluid. The evolution of gas commences spontaneously. Should it become too violent the flask is placed in cold water. The gas is passed over cotton covered with moist oxide of mercury, then pieces of caoutchouc to remove bisulphide of carbon, and, finally, chloride of calcium to dry it. The gas is collect over mercury.

Carbonylic sulphide (COS) is a colourless gas, with an odour not dissimilar to carbonic acid, but at the same time aromatic, recalling sulphuretted hydrogen, though not at all disagreeable. It is soluble in its own volume of water, to which it communicates its odour. After a few hours this solution, however, exhales a strong odour of sulphuretted hydrogen. It is twice as heavy as air, and may be poured from one vessel to the other. It reddens litnus much more than carbonic acid. It burns with a beautiful blue flame, taking fire very readily. In the opinion of the author this gas is widely distributed in nature, and has not been discovered because it is so easily decomposed by water into CO_2 & HS. From some experiments of his own, Thain asserts that this compound occurs in many remarkable thermal springs in Hungary.

Literature.

DYSPEPSIA.

Dr. Wilson Fox's book on Dyspepsia[1] embodies the results of many years diligent enquiry into the pathological origin, the diagnosis and the treatment, of this complaint; and after carefully reading the work, we have no hesitation in strongly recommending it as a most useful hand-book and guide to the practical physician in dealing with the various derangements of the human stomach.

The two plates, at the commencement of the book, are most perfectly executed in every respect, and exhibit the effects of chronic and acute gastric catarrh in inducing degeneration of the stomach tubes and glands.

In plate 2 are diagrams showing infiltration of the tissue with lymphatic elements in a case of catarrh of the stomach, associated with heart disease, and also two most interesting figures (Nos. 18, 19) shewing ulceration of the stomach in tuberculosis and typhoid fever. After an introductory chapter on the nosological classification of dyspepsia, we come to a short and highly practical one, on the general symptomatology of the stomach, and here we find such matters as the appearance of the tongue as a symptom of gastric disorder, derangements of appetite, pain, acidity, flatulence, vomiting, &c., ably and concisely treated. We would in this chapter especially draw the readers attention to the tables introduced as pages 44 and 61. In the first of these are summed up the chief points of distinction between acidity from fermentation, and acidity from hypersecretion of the gastric fluid; in the second table are presented, in two separate columns, the diagnostic differences between gastric and cerebral vomiting.

For purposes of ready reference by the busy practitioner, such tables are of great value, and they form, moreover, an excellent way of impressing these important distinctions on the mind of the student. Here we believe Dr. Fox follows his own admirable teacher of physic at University College, who, whenever he came to insist strongly on certain well-defined distinctions in the diagnosis of two morbid states, would always direct his students to divide the page in their note-books into two columns, and place at the top of one column the name of the one morbid condition, at the top of the other column the other, and this done the professor would proceed to fill up the two columns with the symptoms constituting the differential diagnosis of the two morbid conditions.

The chapter on neuroses of the stomach is one on which evidently much labour has been spent, as the immense number of authorities quoted in the foot-notes prove. For the relief of neuralgic pain of the stomach, Dr. Fox thinks highly of the carbonate of iron, but the dose of this remedy should not exceed five grains, as larger doses often provoke colic and intestinal disturbance. This advice, with respect to the dose of the ferri. carb., backed, too, by the authority of Trousseau, is not uncalled for, as some practitioners increase the dose of carbonate of iron enormously, till their patients actually get intestinal obstruction from masses of insoluble carbonate collecting in their bowels.

Opium, and the nitrate and oxide of silver, are favourably spoken of as remedies for the cure of nervous pain in the stomach. Bismuth and magnesia only find their opportunity when there is hypersecretion or acidity; the combination of bismuth with hydrocyanic acid is very good when any inflammatory state is present to complicate the nervous disturbance.

We would especially draw attention to chapter 7, on chronic inflammatory dyspepsia, or chronic catarrh of the stomach. The author believes that chronic catarrhal inflammation of the stomach, or chronic gastritis, embraces a large number of the cases of obstinate chronic dyspepsia. "It includes," in the author's opinion, "many of the disorders which have been ranked as irritative dyspepsia, and even some which have been placed among nervous affections of the stomach with morbid sensibility, a condition which, in mucous tissues, is much more commonly the result of minor degrees of inflammatory action than of mere derangements of innervation."

At page 192 is given a table exhibiting the principal diseases with which either acute or chronic catarrh of the stomach has been found associated in 100 cases.

The table shews how common chronic catarrh of the stomach is in connection with phthisis, and also with all those diseases which have a tendency to cause obstruction of the venous circulation. These observations concur entirely with those that had been previously made by Dr. Handfield Jones.

Among the most prominent causes of chronic gastric catarrh Dr. Fox places the habit of drinking undiluted spirits.

The last chapter (viii.) in Dr. Fox's work, is one of some six or seven pages on the diagnosis of the various forms of dyspepsia; the points of difficulty in this matter are clearly pointed out, and the method of coming to a distinctive diagnosis indicated.

In this chapter we would commend to notice the hints given for the diagnosis of nervous disturbance of the stomach, "a matter often of great difficulty," but some of this difficulty, at any rate, will be diminished to any one who will make himself familiar with the instructions given by Dr. Fox.

Having now gone through this useful work, we have only to add that in the next edition we shall hope to have rather more of the author's own personal experience, which we know is by no means inconsiderable, on the value of the various methods of treatment, as well as on other points. None, certainly, can say that Dr. Fox has in this book at all claimed for himself anything that belongs to others, for he has in the most impartial way, done justice to all others who have worked in the same field with himself.

MANUAL OF MATERIA MEDICA.

Of Churchill's favourite manuals, Royle's Materia Medica has held its place for years as one of the best. We have constantly employed it since it first appeared, and can, therefore, speak with experience of its value. The fourth edition was arranged in accordance with the British Pharmacopœia of 1864, and has, therefore, become, to some extent, obsolete. We are, therefore, very glad to welcome a fifth edition,[1] and to find it remodelled on the second edition of the British Pharmacopœia of 1867. We do not pretend to have verified all the changes, but so far as we have looked into the manual we are quite

1 On the Diagnosis and Treatment of the varieties of Dyspepsia, considered in relation to the pathological origin of the different forms of indigestion. By Wilson Fox, M.D. Lond., F.R.C.P.; Holme Professor of Clinical Medicine at University College London, and Physician to University College Hospital. 2nd Edition. Pp. 247. London: Macmillan.

1 Manual of Materia Medica and Therapeutics. By J. Forbes Royle, M.D., F.R.S., and F. W. Headland, M.D. London: J. Churchill and Sons.

satisfied. Dr. Headland's name as joint author is a guarantee that nothing has been omitted that the student can fairly look for.

SQUIRE'S COMPANION.

Little more than half a-year ago, we commended to our readers the fifth edition of Squire's Companion to the British Pharmacopœia, and pointed out a few of the excellencies with which the work abounds (MEDICAL PRESS AND CIRCULAR, Nov. 13, 1867). We have now to announce that in spite of a reprint of the fifth having been necessary, that has been exhausted, and Mr. Squire now presents us with the sixth edition of his work[1], which he has taken the pains of, to a great extent, re-writing. It will be acknowledged on all hands that when a work has become almost a necessity to every one engaged in prescribing or dispensing, it is an advantage for new editions to be frequently called for, provided the author will take pains to avail himself of everything that transpires in the interval. This Mr. Squire has most conscientiously done, and inasmuch as the additions and improvements he has introduced are very numerous, and must have cost him unusual trouble, we tender him our best thanks for the perfecting process to which he has submitted his volume. Of course the additions made must be of the non-official order, but these are of the most useful kind. They are scattered throughout the work, and, therefore, not easy to estimate, but we have traced changes on between fifty and sixty pages—quite enough this to show the extreme care with which the edition is revised.

It being impossible to give an idea by enumerating a few of these, we pass to other points. We now find for the first time an attempt to describe the colours and characters of the liquid and solid preparations. For this purpose, Mr. Squire used as standard preparations the collection he placed in the Paris Exhibition, and which may now be inspected in the museum of the London College of Physicians. Some underwent change during the ten months they were in the exhibition, and in each such case this is mentioned—information that may not only be useful to the committee that may have to revise the next British Pharmacopœia, but will serve as a caution to those who are studying the characters of drugs. Then there is the index, to which, in books of this kind, we always look. It is extended from 39 to 50 pages, and must be by so much more useful. Again, every page of this index has between head-lines these words—"Official names in Roman; all others in italics." This will remind the prescriber on every occasion on which he may turn to it, that the names in Roman letters are those used in prescribing according to the national pharmacopœia. It is, therefore, an addition which will be received with thankfulness by all who still find the old names stick to their memories, or who are confused by the many changes in names that have been made.

There were a few other points we had intended to name, but we have said enough to show that Mr. Squire is evidently determined to retain for his book the good name it has won. We need only add that the additions and improvements are well worth the increase in the price it has been necessary to make.

MEDICAL SOCIETY OF LONDON.—MAY 18, 1868.

Dr. RICHARDSON, F.R.S., President.

THIRD EXTRAORDINARY MEETING.

THE following gentlemen were admitted Fellows by the President:—Dr. William Evans, Dr. David Bell, Dr. J. T. Powell, and Dr. Wane.

Dr. HENRY DICK showed Schäefus' egg-tester, and remarked that its construction was based on the same principle as the endoscope. He also exhibited an endoscope for testing eggs with thick shells, which could be also used for surgical examinations of various parts of the body.

The PRESIDENT exhibited a lamp in which magnesium was employed, and by the use of which he had been enabled to see through the hand of a man. He thought such an instrument might be valuable for diagnostic purposes, such as in exploring abdominal tumours, &c., and in defining the outlines of various organs.

Dr. OPPERT related a case of visceral syphilis. The patient was a child who, when six months old, was infected by a nurse who had a chancre on her nipple. The child got a chancre on the tongue, and subsequently secondary eruptions appeared. The child died seven months after, and at the post-mortem examination white gumreta were found in the lungs, containing an abundance of small cell element.

Dr. THOROWGOOD showed a biliary calculus found—post-mortem—in the gall-bladder of a woman. The point of interest of the case was that during life there were no symptoms at all of gall-stone.

Mr. J. F. PURVIS, of Greenwich, also showed a biliary calculus two inches in length, three and a quarter inches in circumference, and weighing four drachms thirty-nine grains. In this instance the patient had suffered most severely during its passage ten years ago, but was now alive and well.

Mr. W. H. DAY exhibited a biliary calculus the size of a linnet's egg. An interesting and long discussion ensued, at the conclusion of which it was arranged that the subject should be brought before the Society in the form of a paper.

Dr. SEDGWICK read a paper on laryngeal cold. He gave the results of an extended investigation of the Registrar-General's Report. The result was that bronchitis was most fatal when the mean temperature was low, laryngitis and croup when the extreme range of temperature was great.

The question of the registration of disease was then fully discussed, and the Council were instructed to take the subject into consideration.

Dr. DAY, of Stafford, read a paper on "the Spinal Origin of Rheumatism." He commenced by pointing out that the late Professor Mitchell, of Philadelphia, was the first to entertain this view. Dr. Day said that in every instance of acute rheumatism he had detected some amount of spinal tenderness. He treated his cases by cupping and blistering the spine, and was quite satisfied with the results. He related a case of severe acute rheumatism, which had been cured in eleven days. In conclusion, he pointed out the complete compatibility of his views, and the theory propounded by the President, of the nerve resistance of force.

In the discussion that followed, Dr. CHAPMAN said he had treated cases in this way with great success.

Dr. ROUTH thought that the benefit in the case narrated was due to the purgatives given.

The PRESIDENT spoke of experiments that he had made some time ago with lactic acid. He had always found acidity during rigor mortis. He had found that so long as there was a tonic action with relaxation, there was no acidity, but as soon as death came there then also came acidity.

Mr. DAY replied at some length, and the meeting adjourned.

Correspondence.

THE TURKISH BATH IN THE TREATMENT OF DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have lately perceived with pleasure that, in the spirit of progress and fair play, you have opened your valuable columns for the record of cases treated by the Turkish bath.

Though I could furnish you with innumerable cases treated successfully by the bath after the failure of all other remedies, I forbear at present from doing so, but I cannot permit to pass without comment the introductory observations of Dr. Butler on the interesting cases published by him in your number of the 15th instant, wherein he says:—

"In Dublin, perhaps, more than any other city in the world, is the use of baths in any form regarded with a cold and passive indifference, which certainly cannot be due to their want of real merit as curative agents, nor yet to any deficiency of appreciative intelligence (if I may use the expression) on the part of the Dublin practitioners, a fact which their universal reputation proclaims. And yet, that such is in reality the case, I have upon the authority of one of the most venerable, and at the same time illustrious practitioners in Dublin or any other city. *I regard the present apathy of the profession on the subject not to any hostility upon their part to the use of baths grounded upon physiological or scientific data, but to the fact that up to the present the subject has never been brought under their observation;* nor, I presume, are the majority aware that there is an establishment in Dublin at present second to none in the United Kingdom, and where every facility is afforded for fully testing the value of the different descriptions of baths."

May I respectfully ask what part of the world Dr. Butler has been living in for the last twelve years, during which the press has groaned under the numerous publications which from

[1] Companion to the new edition of the British Pharmacopœia (1867). By Peter Squire, F.R.S. 6th edition. London: J. Churchill and Sons.

time to time have issued from it on the bath. Does Dr. Butler forget Sir D. Corrigan's famous attack on the bath some ten years ago, and the great publicity given to that attack at the time? If medical men are ignorant of the numerous cures resulting from the bath, it is partly because, in their pride of knowledge, they will not investigate its merits, and partly because medical journals have hitherto as a rule studiously refrained from giving publicity to them, or opening their pages to the discussion of a subject of such paramount importance to the profession and the public.

In conclusion, I would refer Dr. Butler and your readers to the following extract from Mr. Spencer Wells' interesting lecture delivered to the pupils of the surgical class at the School of Medicine adjoining St. George's Hospital, on the 31st October, 1860, and published in the *Medical Times and Gazette* of November 3rd, 1860:—

"But lately a very important addition has been made to our means of preventing and treating disease by the revival of the Turkish or ancient Roman, hot *air* bath. Our baths, though unworthy of the idea that we are now attaching to the word bath, hitherto have been water or watery vapour; now we have hot air. You will see at once the great importance of this distinction, when you reflect that, in the one case, the heated body is surrounded by dry air, which must favour the exosmosis of the watery portion of the blood through the coats of the cutaneous capillaries, and the endosmosis of oxygen, and at the same time must favour evaporation; while, in the other case, the body is either immersed in water, which would be absorbed in place of oxygen, while evaporation would be checked,—or it is surrounded by watery vapour, which has more or less of the same effect, or by the mixture of vapour and carbonic acid evolved from burning spirit. In the one case, you have exosmosis of fluid, and absorption of oxygen; in the other case, you have neither. We shall see presently that dry air can be supported to a far higher degree of heat than air which contains much moisture, so that we can order baths of far higher temperatures than we ever thought of before. *All this you should be acquainted with or you will find your patients know more about it than you do yourselves, and nothing can be conceived more damaging to your prospects of professional success.* If you hope to succeed, you *must* keep ahead of your patients in the knowledge of everything relating to their health. Now that hot air baths are springing up in all directions, the public are crowding to them, and crying out for information about them. The first bath in this kingdom was erected by Mr. Urquhart, at Dr. Barters' establishment, near Cork, in 1856."

I cannot refrain from observing that if the profession had wisely profited by the sound advice above given, Dr. Butler would have been spared the painful necessity of commenting on their "cold and passive indifference" to a matter so vitally affecting the progress of sound therapeutics; nor would Sir Thomas Watson have been lately obliged to speak in the following terms of the present condition of the healing art:—

"Certainly the greatest gap in the science of medicine is to be found in its final and supreme stage—the *stage of therapeutics.* We want to learn distinctly what is the action of drugs, and of *other outward influences*, upon the bodily organs and functions—for every one now-a-days, I suppose, acknowledges that it is only by *controlling or directing the natural forces* of the body that we can reasonably hope to govern or guide its diseased action. To me it has been a life-long wonder how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this, and, not succeeding, we try that, and, baffled again, we try something else; and it is fortunate if we do no harm in these our tryings. Now, this random and haphazard practice, whenever and by whomsoever adopted, is both dangerous in itself, and discreditable to medicine as a science. Our profession is continually floating on a sea of doubts about questions of the gravest importance. Of this the evidence is plentiful and constant.

. . . . . .

"I say this uncertainty, this unseemly variation and instability of opinions, is a standing reproach to the calling we profess. It has shaken the faith of many men, of men both able and thoughtful. and driven them to ask themselves *whether any kind of medication*, other than the *vis medicatrix naturæ*, is of any real efficacy or value."

My large experience convinces me that air and water, modified by temperature, and scientifically administered, efficiently fill the gap alluded to.—I am, sir, your faithful and obedient servant,

RICHARD BARTERS, M.R.C.S.E.

April 21, 1868.

Medical News.

FELLOWSHIP OF ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College having undergone the necessary examinations for the Fellowship were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council, on the 11th inst., were admitted Fellows of the College:—Messrs. James Nicholls, Chelmsford, diploma of membership, dated October 15, 1852; William Robert Cornish, Her Majesty's Indian Army, December 17, 1852; and John Warrington Haward, Westbourne-park, May 7, 1863, students of St. George's Hospital. William John Palmer, Her Majesty's Indian Army, June 17, 1853; Edward James Pollock, Old Cavendish-street, July 30, 1863; and Hutchinson Royes Bell, Harley-street, November 19, 1863, of King's College. Edwin Clement Bensley, Her Majesty's Indian Army, November 5, 1858; Samuel Grose, Royal Marines, April 11, 1859; and William Warwick Wagstaffe, Kennington-road, April 29, 1864, of St. Thomas's Hospital. Thomas Richard Jessop, Leeds, July 19, 1859; John Foster, Bradford, Yorkshire, July 19, 1859; and John Sykes, Leeds, May 8, 1866, of the Leeds School. Matthew Algernon Adams, Maidstone, July 15, 1859; and Henry Greenway Hawse, Maze-pond, January 25, 1865, of Guy's Hospital. William Birket Procter, Bradford, Yorkshire, May 7, 1854, of the Middlesex Hospital; and George Farr White, Ryde, Isle of Wight, July 10, 1857, of the University College. It is added that all the candidates who presented themselves on this occasion passed the examination for the above distinction.

ST. MARYLEBONE WORKHOUSE.—At the request of Sir James J. Hamilton, Bart., crown churchwarden of the parish of St. Marylebone, the Earl of Devon, President of the Poor-law Board, in company with Sir Michael Edward Hicks Beach, Bart., M.P., Poor-law Secretary, visited the new casual and chronic wards of the workhouse of this parish, to which we lately drew attention, and which were erected from the designs of Mr. Saxon Snell. The Earl, who was accompanied in his inspection by Sir James J. Hamilton, the Rev. C. J. Phipps Eyre, the rector; Dr. Brewer, chairman of the Metropolitan District Asylum Board, and several of the guardians of St. Marylebone and other metropolitan workhouses, expressed his warm approval of the admirable arrangements made by the guardians of this parish for the comfort of their aged and infirm poor, and of the extreme cleanliness, order, and regularity which prevailed throughout the whole of this extensive establishment.

SCOTTISH UNIVERSITIES' UNION.—This association was originally established to promote social intercourse among gentlemen of literary tastes who had been educated at the Scotch Universities. Its first president was the late Rev. F. A. Cox, M.A. Edinburgh, and LL.D. Glasgow, author, amongst other works, of a volume on "Bible Antiquities," forming the article on that subject in the Encyclopedia Metropolitana, and joint worker with Brougham in the establishment of the University College, London. He was succeeded by various literary alumni of Scotch Universities, the last of whom were Sir David Brewster and Lord Brougham. Similar in constitution and aims with the Social Science Association, it has been thought likely that now when the Scottish Universities are to be enfranchised this society might prove a sort of united convocation for all their members. Sir James Y. Simpson, Bart., has consented to be one of the vice-presidents, and Dr. George W. Balfour has been appointed honorary local secretary for Edinburgh. A secretary and treasurer will also be appointed in Glasgow, Aberdeen, St. Andrews, London, Dublin, and wherever else it may be thought desirable. In Dublin, Sir Dominic Corrigan, Bart. (an M.D. of Edinburgh), has accepted the chief post, and is one of the vice-presidents of the year. A general meeting is hoped to be held before the close of the year, at a place afterwards to be agreed upon, when papers will be read by distinguished alumni on subjects connected with the universities and education. Further particulars will be advertised.—*Courant, June 6th.*

PROFESSOR JOSEPH PERKINS has resigned the chair of Obstetrics in the Medical Department of the University of Vermont, at Burlington, and is succeeded by Dr. E. S. Dunster, editor of the *New York Medical Journal.*

The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 24, 1868.

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Lecture.

CLINICAL LECTURE ON INSUFFICIENCY OF THE AORTIC VALVES.

By S. JACCOUD, M.D.,

PHYSICIAN TO THE HOSPITAL OF ST. ANTOINE, PARIS.

TRANSLATED BY JOHN COCKLE, M.D., M.A.

(Continued from page 516.)

Aortic obstructive disease, of special frequency in old subjects, is usually accompanied by senile degeneration of the arteries; the characters of the pulse are, consequently, necessarily complex. But, the following trace, from a young man, æt 19, suffering from aortic obstruction (probably congenital), will show the true pulse of this form of disease. In this youth, there is considerable hypertrophy and energetic impulse of the heart; if you take note of this circumstance, you will find that the pulse is small, but perfectly regular (a fact, Marey has already pointed out), and the dicrotism of the line of descent is scarcely marked (see Trace 7, p. 514). Observe at the summit of the curve a slight level, which reminds us of Trace 4.

Whenever aortic obstruction coincides with mitral insufficiency, it appears that the former lesion causes the irregularity of the pulse, special to the latter, to disappear in part. It may be supposed that the aortic obstruction, imposing fixed limits to the ventricular discharge, no longer permits the passage of an alternation of very small or very large waves of blood; but, a variable volume of wave at each contraction of the heart, is one of the causes of the irregularity of the mitral pulse.

The following trace was taken from a female patient, æt. 69, suffering from aortic obstruction and mitral insufficiency (see Trace 8, p. 514). The pulse though small, is regular; the level of the curve is clearly marked, and the line of descent literally broken.

The traces, next exhibited, relate to mitral disease.

Marey insists, with reason, upon the irregularity of the pulse of mitral insufficiency; it is, according to him, the pathognomonic character. This irregularity is complete without exhibiting those regularly periodic variations common to senile degeneration of the arteries, and the tracings he depicts of this form of pulse, fully justify his assertion. I accept it, for my part, with one restriction forced upon me, from my own observations. When mitral insufficiency reveals itself only by a murmur at the apex during the first period; when it produces no disorder of the peripheral circulation; in a word, when the signs of asystolie are entirely absent—the pulse may be perfectly regular, smallness and length of the line of descent being then its chief characteristics. But, however little the artificial equilibrium of the circulation is disturbed, however slight the extent to which the signs of *asystolie* appear, irregularity of pulse shows itself in the form assigned by the founder of sphygmography in France. The following traces justify my reservation (see Traces 9 and 10, p. 514).

The first trace was taken from a young girl aged 18, who suffered, at the age of 15, from an attack of acute rheumatism associated with endocarditis. From this period she has been subject to palpitation, and had, on one occasion, swelling of the legs. At the present time the mitral disease, perfectly compensated, reveals itself only by a rough murmur at the apex of the heart, during the first period. There exists no anæmic murmur at the base to confuse and complicate the case. The pulse is small, very slightly dicrotous, but still perfectly regular. Similar remarks are applicable to the trace 10, taken from an adult male suffering under like conditions. In this case, the dicrotism only has disappeared, whilst in mitral insufficiency with irregular pulse, the smallest pulsations retain very marked dicrotism. The subjoined figure exhibits the perfect type of this form of pulse (see Marey. Fig. 202, page 514).

I do not possess a trace of pure mitral contraction, but a patient, who has been for some time in the hospital, affords us an opportunity of studying the pulse of contraction combined with insufficiency of this orifice. In the case of this man, æt. 56, the double lesion reveals itself by a double murmur at the apex, the aortic orifice remaining intact. Upon his arrival at the hospital, this man was in a most alarming state of complete *asystolie*, the rhythm of the heart's action, was not detectable; and the pulse, almost reduced to a thread under the finger, could not impart movement to the sphygmograph. Under the influence of appropriate treatment, in which digitalis in 15 grain doses daily, played the principal part, these accidents were modified. In about 48 hours the pulse had acquired sufficient force to be registered with the following result (see Trace 11, page 514).

Two days later, the effect of the digitalis was still more decided, the pulse had acquired greater amplitude, but its fundamental characters were the same as shown in the trace of to-day (see Trace 12, page 514).

The dominant character of these two traces, is the irregularity, an irregularity of the same kind as that which characterises simple mitral insufficiency, with dicrotism of the smaller pulsations. Indeed, even at the present time, I know of no constant character which will enable us to distinguish, at first sight, the trace of simple mitral insufficiency from that of insufficiency with contraction. In a large proportion of cases we may take for guidance the modification pointed out by Marey. Contraction tends to suppress the characteristic irregularity of insufficiency; but the preceding fact, and many analogous ones which I have observed, do not authorize me in affirming the constancy of the result.

This discussion will not, I trust, have been uselessly made. I now return to the patient whose case was the subject of this lecture, as its clinical interest is not yet exhausted.

I have mentioned to you that this woman contracted cardiac disease more than fifteen years ago, as a consequence of acute rheumatism, and during this long period she has suffered no other inconvenience than that of palpitation, rather frequent attacks of bronchitis, and slight œdema of the ankles, when during the day she had undergone more than ordinary fatigue. These slight accidents, however, have never compelled her to suspend her duties. It is only now that the state of her heart has caused her to apply for relief. Upwards of fifteen years she has suffered, without distress, from aortic insufficiency; then, all of a sudden, this affection, mute hitherto, has given tongue, and, by an abrupt outburst, lighting up the accidents which follow in its train, has brought this woman to the serious condition I described at the commencement of the lecture.

Why has all this occurred? Why this sudden storm succeeding fifteen years of calm? This is the question I propose to examine. It obtrudes in the same terms, in all the organic diseases of the heart, and you may easily apply to other cases, the special results of aortic insufficiency.

The preceding question resolves itself into two distinct problems. How did it happen that the disease produced no accident before? Why was the immunity only temporary?

The reply to the first question is easy; it would present itself almost spontaneously to your minds if you reflect upon the disturbance that incompetence of the aortic orifice engenders in the mechanism of the intra-cardiac circulation. At the instant of the ventricular diastole, when the blood-wave, compressed by the elastic reaction of the aorta, should pass entire towards the peripheral vessels, the sigmoid valves remain unclosed, and a portion of the blood falls back into the chamber it had just quitted, as a necessary result. The quantity and force of the reflux are conditioned upon the diameter of the size of the chink, and the systolic energy of the aorta. Imagine matters, then, to continue in this state; imagine that no new condition intervenes to compensate the influence of such disturbance—the circulation would speedily become completely obstructed in the cardiac cavities, and the heart would cease to act. Picture well to yourselves what happens. The left ventricle possesses a definite capacity—estimate it at 10; but, as a consequence of the non-closure of the aortic valves, the quantity it would hold is no longer 10, but 12, for example. But if no change occurs; if the original capacity of the chamber remains the same, it could not find accommodation for the overcharge of blood; the left auricle, therefore, could no longer thoroughly empty itself, and the stasis would extend, step by step, to the right cavities of the heart by the intermediation of the veins and pulmonary artery, until the engorgement—or, to use a better term—the excentric pressure of the blood contained in the cavities, overpowers the contractile force of the heart, in which case the organ stops before the obstacle it cannot conquer. Consequently, in order that the disastrous results of aortic incompetence may admit of compensation, it is above all things necessary that the ventricle should permit distension, and dilate to such an extent as to be enabled to accommodate the surplusage of blood. In a word, the capacity of the containing vessel must be adequate to that of the fluid to be contained. This is what really happens, and dilatation of the left ventricle is the first mode of compensation in aortic insufficiency. This, however, is insufficient, and, limited to this resource, the compensation would be but transient. Glance again at the numerical figure used shortly before. Assume the dilated left ventricle equal to 12 instead of 10; still, if its propulsive power remains equal to 10—that is to say, if the contractile force of the muscle is unable to project into the aorta a column superior to 10, matters would not be improved, despite the compensative dilatation. The import is 12, the export 10. It is evident, therefore, that a residue of 2 remains in the cavity of the ventricle, and additions being made in arithmetical progression during each systole, the transit of blood from the auricle into the ventricle would speedily become seriously modified, and a great aggregate of results of cardiac disorders, uncompensated, would accrue. Defect of propulsive force lessens arterial tension and, as a result, causes diminution or suppression of the secretions, and notably, that of the kidney; at the same time, the obstruction offered to the passage of blood from the auricles increases the tension of the veins; hence, dropsical effusion, and all forms of congestion. The secondary forms of disorder induced by organic lesions of the heart acknowledge no other cause that this reversal of the respective tension of the arterial and venous systems. In the normal state, the arterial tension far transcends that of the veins; in the pathological state, which we study, the difference is annulled, or manifests itself in the inverse direction, the marked phenomena of asystolie and of cardiac cachexia, acknowledge no other pathogenic condition. Wherever the seat of the cardiac lesion may be, the moment such lesion is no longer compensated, it acts by the same mechanism; diminution of arterial and increase of venous tension—all, I repeat, is here. Mere dilatation of the left ventricle cannot furnish a desirable compensation. It is of paramount necessity, that the propulsive power should be proportionately increased; if the ventricle contain 12, it must propel 12, and this condition becomes realised by the hypertrophy of the cardiac muscular tissue. The propelling agent augments in power at the same time that it increases in capacity; from this moment, compensation is established, and may last for years. Dilatation and hypertrophy of the left ventricle furnish, then, the solution of the first problem; but how does it happen that this condition is unproductive of mischief?

When the compensation thus established is perfect—that is to say, when there exists a due proportion between the dilated hypertrophy on the one part, and the volume of the retrogressive wave on the other, the disease is literally mute, those so affected are sensible of no injurious effects—are not, strictly speaking, to be considered sick. But the compensative influence does not, in all cases, respect these favourable limits. It may stop within, or may extend beyond them. In the first case it is incomplete; in the second, it is exaggerated.

By imperfect compensation, I understand that degree which, though sufficient to prevent *asystolie*, properly so termed, permits, nevertheless, the development of phenomena more or less serious. I should not pause upon this particular stage were it not liable to lead to a serious therapeutic error, in the following manner:—The phenomena alluded to, consist of more or less frequent paroxysms of palpitation, a tendency to syncope in the erect position, and, more particularly, on sudden change from a recumbent to an erect position; there exist, moreover vertigo, aural tinnitus, optical disorder, and the face usually pale, is subject, several times daily, to sudden flushings, of which the patient much complains, designating them as "puffs of heat." Conjoined with these phenomena, the pulse exhibits the ample and bounding character of aortic insufficiency, and if the clinical observer were not prepared, he would infallibly be misled by the sug-

gestion of the patient, and refer the symptoms to habitual cerebral congestion. Treatment is adopted in accordance with this view ; venesection is employed, and the practitioner is quite surprised at the inutility of the plan; the more active his treatment to quell this persistent congestion, the more the symptoms increase, the pulse becomes more and more ample, more and more bounding, the palpitation and syncopal tendency increase, and at length the nutrition of the ventricle becoming seriously impaired, it is longer able to impel its contained blood, and asystolie supervenes. The compensation was imperfect, the treatment has destroyed it. And why? Because the congestion, the assumed source of all the mischief, had no real existence, and because the symptoms experienced by the patient were mainly due to cerebral anæmia. The compensation was imperfect, that is to say, the propelling power of the ventricle was not in due proportion to the column of blood to be propelled ; the cerebral circulation then would be the first to manifest disturbance, because the blood, to reach this centre, ascends against the force of gravity ; power of cardiac action is here essential. From want of this power, arose the tendency to syncope in the erect position, vertigo, optical disorder ; and from this defective cardiac power, again, arose the ill effects of spoliative treatment.

So far then from following the erring indications furnished by the pulse, it is necessary to seek, from other symptoms, the true cause of the accidents observed. You will, then, discover that the impulse of the heart is weak, and that its beating possesses but little energy ; you will, also, seek in vain the thrill and arterial jerking; and, finally, you will find that the distressing symptoms complained of, are less marked or even absent, so long as the patient remains in the recumbent position. From these signs you will recognise the feebleness of the ventricular contraction, and the existence of imperfect compensation. What is really required in such a case is a tonic treatment assisted by invigorating diet. Extract of bark, to the extent of 30 or 40 grains daily, preparations of steel, and red wine, in quantity proportional to the habits and condition of the patient, such are the best means to be resorted to. I have many times witnessed, in similar cases, the efficacy of this treatment, to which I add a cup of infusion of quassia, to be taken in the morning, fasting. This agent excites organic contractility, and this property which recent investigations have disclosed to us, is, here, of real utility.

Tea and coffee are, also, important agents by virtue of their exciting influence over the nervous system. In cases where aortic insufficiency is imperfectly compensated, the ordinary symptoms occasionally acquire an intensity sufficient to create alarm ; under such circumstances we cannot wait for the usually slower effects of the measures recommended, but must, at once, resort to stimulants of a more energetic and prompt description. Æther, Hoffman's anodyne, in doses of 10 or 15 drops, repeated according to circumstances ; acetate of ammonia in doses of one or two fluid drachms, in a julep sweetened with syrup of æther. Lastly, the ammoniacal spirit of *Sylvius*, (30 or 40 drops in infusion of mint), are, now, specially indicated. The use of these agents is to be pretermitted directly the symptoms improve, and the tonic treatment recommenced, and used with the requisite tact to combat the same source of danger, to wit—imperfect compensation.

Exaggerated compensation presents a totally different picture ; strong impulse, violent beating of the heart, jerking of the arteries, bounding and vibrating pulse, congested face, constant headache, tinnitus aurium, sleeplessness, and frequent attacks of hæmorrhage, especially from the nose. Such are the principal characters of this condition ; they are those of the form of hypertrophy termed active ; but the fact of the aortic incompetence, indicates a different plan of treatment.

Despite the signs, so marked, of arterial fluxion, it is far from good treatment to take blood from this class of patients. The condition immediately consequent upon the momentary relief thus afforded, is precisely similar to that of the mechanical disorders, inasmuch as the blood removed is almost immediately replaced by water, so that nothing is gained by the operation. On the other hand, by creating an artificial hydræmia, the risk is incurred of seriously weakening the heart's action, and hastening the advent of that disturbance of its nutrition which, sooner or later, terminates in *asystolie*. Furthermore, it would be impossible to affirm that the patient is not of a constitution liable to fall into a state of syncope from ordinary venesection, and this doubt alone ought to deter us from such a measure ; for, if syncope is always an alarming accident in cases of organic disease of the heart, it is greatly more so in cases of aortic insufficiency. Venesection is then, as the rule, justly proscribed in the treatment of this disease, and is only to be resorted to under some great, though temporary emergency, such as cerebral or pulmonary congestion, or in a case of severe hæmorrhage. In order to diminish the exaggerated compensation and over-action of the heart, means must be employed whose action though slower, is more durable, and less dangerous. Mental and bodily repose, relaxation from business pursuits and fatiguing amusements, moderate diet, composed almost exclusively of milk, vegetables and white meats, constitute the best hygienic plan. Various therapeutic agents may aid its influence ; hydrocyanic acid, cyanuret and iodide of potash. I have in such cases, on two occasions, derived advantage from this latter remedy, the special sedative action of which does not seem to be sufficiently known. But the grand remedy is digitalis, and, in my opinion, the best form is an infusion of the leaves. Under the special circumstances we have been considering, the action of this agent is certain ; frequently, after the very first day, the beating of the heart is less violent, the sense of oppression, consequently less distressing, the pulse diminishes, and loses its vibrating character, and after forty-eight or seventy-two hours, the case undergoes considerable amelioration. The result is still more striking if the action of the heart is, at the same time, violent and irregular, though this condition is rare in simple aortic insufficiency. But do not, gentlemen, abandon yourselves to a false security. Like all other powerful agents, there are dangers attending the use of digitalis it is important to be aware of. Whether you commence with too powerful a dose or, inordinately, prolong the maximum dose I have prescribed, you will suddenly pass from the therapeutic to the toxic action of the agent, with the following result :—with, or without gastro-intestinal phenomena, with or without cerebral phenomena, the action of the heart weakens, and beats with unusual frequency ; the pulse becomes small, rapid, and compressible ; phenomena of venous *stasis* appear, and the face acquires a cyanotic hue. In a word, you have an artificial *asystolie*, which, if prolonged, will destroy the patient as surely as the spontaneous form.

There has been, nay, is still, much discussion touching the mechanism of these phenomena. The pathologic interpretation necessarily varies according to the view adopted of the function of the *par vagum* ; whether it be an inhibiting or moderating cardiac nerve, or, whether of the excito-motor class ; and, also, according to the part the sympathetic nerve is supposed to play in the innervation of the heart. The divergence of opinion is, happily, unimportant, since, if we do not know, with certainty, what the modification may be which substitutes a toxic for a therapeutic action, we are perfectly sure what the disorders produced in the circulation, are, by this primordial modification, and knowing this, we are quite cognizant of the artificial *asystolie*, produced by digitalis. Science is indebted to Traube for this important fact. By a series of delicate experiments, the distinguished Professor of Berlin has discovered that the effect of digitalis, in large or toxic doses, is to diminish sensibly the arterial tension and to augment the frequency of the heart's beat, so that, digitalis acts, under such circumstances, in the same way as cardiac lesions non-compensated, which, you will remember, commence by inversing the normal tension in the

two circulating systems. It is, therefore, no matter of surprise that the symptomatic phenomena are the same in both cases.

You may suppose, therefore, that the administration of digitalis requires, in such cases, unceasing watchfulness. Once the sedative therapeutic effect obtained, it is needful to examine, several times daily, the impulse of the heart and the state of the pulse, observing at the same time the nature of the respiration and the tint of the complexion, and upon the appearance of the very earliest sign of weakness, or cyanotic tint, either suspend the medicine or lessen the dose. Such examination should be repeated at short intervals, because, in patients who have been for some days under the influence of the drug, the toxic effects appear, in general, very abruptly. Under such delicate circumstances, no means of information ought to be omitted ; I would therefore advise you, daily, to ascertain the amount of urine excreted ; this is a sure index, and one which has never misled me. So long as the secretion increases under the influence of the remedy —so long as the amount, once brought to its normal standard, only oscillates within narrow limits, there is no danger ; but when the diet and the medicine, remaining unchanged, the quantity of urine secreted in 24 hours again diminishes, and returns to the quantity passed at the commencement of treatment, feel assured that the arterial tension begins to lessen, and that artificial *asystolic* is imminent ; discontinue the treatment without delay. This sign sometimes antecedes any appreciable weakness of the heart and pulse, and is the reason why I cannot too urgently enforce the necessity of its observance.

As a consequence of some theory I am unacquainted with, aconitine has been vaunted as a substitute for digitalis, but the researches of *Van Praag* have proved this agent to be untrustworthy ; it will, therefore, be prudent to abandon it. Not so, however, with respect to Cafeine, which, unquestionably, merits a place in the therapeutics of the diseases of the heart. Under the influence of this agent, administered in doses of about 5 to 15 grains daily, in the form of a pill, the heart acquires vigour, its action becomes more regular, and as a necessary consequence, the secretion of urine is increased. When the patient, to whom cafeine is given, is in a state of marked *asystolie*, the effect obtained can be easily followed and measured by means of the sphygmograph, which ought always to be used under such circumstances, if it be desirable to estimate what is being effected.

Cafeine, then, exhibits an action similar to that of digitalis, but, according to my experience, this action, although quite as prompt, is less energetic. The Traces 11 and 12 enable us to appreciate the influence of digitalis in the case of the man in St. Charles' ward, suffering from mitral insufficiency and contraction. The two traces I now show you, demonstrate the positive action of cafeine. They were taken from the same patient. The digitalis was suspended for eight days, a very necessary precaution to observe prior to the institution of a fresh experiment, remembering that the effects of the drug lasted in his case three or four days, at least. During the last three, out of the eight days, the phenomena of *asystolie* were developed anew, the pulse had re-acquired the irregularity and weakness that it presented at the time of his admission into the hospital ; it could, however, be registered with the sphygmograph, as shown in the trace 15 (see Trace 13, page 514.)

Shortly after this trace was taken, four pills, each containing about three grains of cafeine, were given at intervals of two hours. Within twelve hours after the last dose, the pulse had already changed its character (see Trace 14, page 514.)

The irregularity was less, and the amplitude of the pulsation, that is, the force of the cardiac impulse, had visibly increased. But there remains another proof. The patient had only passed seven ounces of urine during the twenty-four hours preceding the administration of the cafeine ; after the dose he passed, in the same space of time, fourteen ounces, and when the dose had been increased to five grains, the quantity of water passed reached 24½ ounces. Cafeine, which may also be administered in the form of a citrate, has then an unquestionable influence, resembling that of digitalis, though less decided. Compare Trace 14 with Trace 12, and you will perceive that the pulse had acquired much greater power under the action of digitalis ; more than this, the effects of cafeine cease, after the discontinuance of the agent, and for this reason digitalis merits the preference. But as patients are found who, in consequence of a special susceptibility of the stomach, cannot tolerate this remedy, it is important to be familiar with the parallel properties of cafeine.

In cases of aortic insufficiency, and in diseases of the heart generally, there exist no other indications for the use of digitalis than those I have pointed out ; sedative and regulator, *par excellence*, of cardiac activity this agent is specially applicable to the following symptoms—over-action or, deficient action of the heart. Digitalis acts, moreover, on the secretion of urine, increasing its amount ; but this result is secondary and simple, resulting from the equalisation of the action of the heart and the increase of the arterial tension.

The indication for the use of digitalis does not exist in the case of our patient, but in order to remedy the mechanical disorder of the circulation, we have employed drastics and tonics ; you have witnessed the efficacy of this treatment. Whether the relief produced will be permanent is another question, to which we shall almost immediately recur.

However perfect the compensation of the cardiac lesions may be, it is but temporary. The artificial equilibrium, by means of which it maintains a circulation nearly normal, may last for years, but it must yield in time, and the change is fatal. The muscular tissue of the heart, compromised as to its nutrition, eventually undergoes regressive transformation, ordinarily of a fatty character, and when this secondary change, the importance of which has been pointed out by Stokes and Paget, has arrived at a certain point, the ventricle, although increased in volume, although apparently hypertrophous, no longer contains sufficient contractile tissue to meet the requirements of the over-action imposed upon it by disease, its impulsive force diminishes, and it empties itself imperfectly ; the evacuation of the venous system is, as a consequence, prevented ; the compensation is destroyed, and, as this result arises from an anatomical condition over which we have no control, the action of the heart must, of necessity, be arrested, and death ensue. It is quite impossible to assign any limit to the time required to produce this degeneration of the cardiac tissue ; the most surprising variation exists in this particular. The seat of disease, and the amount of the obstruction offered to the passage of the blood are, doubtless, of some importance as to the result, but the chief reason of the difference must be sought for in the vital condition of the patient, in the mode of his nutrition, and, consequently, some little in the treatment which has been adopted.

(To be continued.)

Original Communications.

ON TWO CASES OF CEREBRAL SOFTENING.

By W. H. DAY, M.D., M.R.C.P.Lond.,

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THE two following cases are of sufficient interest to induce me to place them on record, as exemplifying some symptoms of an unusual character, and among these the absence of headache is rather uncommon. No headache at any time was complained of in either case during illness. The defective vision first attracted notice. In the cerebral affections of young children (acute hydrocephalus for instance) and in the cerebral softening of those advanced in life,

headache is a constant symptom, so constant that its absence may lead us to underrate the importance of the case, even when serious mischief is going on in the brain. In a case of remittent fever, in a young girl who came under my care some years ago, the absence of headache was scarcely to be accounted for, when a post-mortem examination revealed general inflammation of the membranes, and superficial parts of the brain, with effusion into the lateral ventricles, and meningitis at the base of the brain. The head derangement first manifested itself by a sudden and violent convulsion during the convalescent period of the fever, when the skin was cool, and the pulse reduced to 80 beats per minute. A little twitching of the right eyelid had been noticed the day before the attack, but there was no strabismus, vomiting, or dimness of vision present, and the intestinal disorder appeared enough to account for this symptom. The presence of headache is certainly a very frequent sign of cerebral disturbance, but its absence is by no means incompatible with the gravest lesion. The brain is so peculiarly organised that similar results are brought about by the operation of very different causes. Hæmorrhage into the brain, or congestion of its vessels, may paralyse the functions of intelligence, of motion, and of sensation. It may give rise to the most severe convulsions, as in cases where extreme loss of blood has taken place, and the changes cannot be too slight to exert their influence on the delicacy of the nervous centres. A susceptibility to nervous diseases generally, and a quickness and a fertility of imagination, appear to me to solve this explanation of many cerebral affections.

PARALYSIS OF THE THIRD NERVE: RAMOLLISSEMENT: DEATH.

Case 1.—C. W., æt. 35 (May 11, 1862), has suffered the last three weeks from dilatation of the left pupil, with an imperfection of the branches of the nerves supplying the external muscles, so far as to occasion him giddiness in walking, when he shuts the right eye, and attempts to balance himself by the aid of the left eye only. There is lacrymation and injection of the conjunctival vessels, and he complains that the eye is very weak. It does not rise so high in the orbit as the other, and it turns more outwards.

Mr. Bowman thought the third nerve was affected in some part of its course, within the head, and perhaps at its origin. The digestive organs are deranged, pulse regular and good, urine rather high-coloured, and non-albuminous. He was ordered to take a light diet, and two glasses of sherry daily. He also took the following medicine:—

℞ Pil. hydrarg. gr. iss.
„ rhei co. gr. iii., in pilula.

To be taken every night for a week.

℞ Potass. iodidi gr. iv.
„ bicarb. gr. x.
Tinct. gent. comp. ʒi. Aquæ ad. ʒj.

Fiat haustus. To be taken twice a-day—at eleven and four o'clock.

May 17.—The general health was much improved, and the inflammatory redness of the eye was gone. A small blister was applied behind the left ear every third night.

26th.—The pupillary dilatation was less, and the sight stronger, though objects are still hazy.

29th.—The pupil is diminished to nearly half the size it was ten days ago, and were it not that the right pupil is very small, the affected eye would scarcely create notice. He can read ordinary type at the visual distance.

To take, in addition to the mixture, pil. ferri comp. gr. v. twice a-day.

July 30th.—There is very little difference in the appearance of the two eyes; the lens is healthy, and the sight perfect when he looks through a small hole with a 16-inch convex lens.

August 30.—The iodide having been omitted for a fortnight, was again resumed.

September 14.—The eye is certainly weaker, but the general health is very good. The pulse is slow and weak. To omit the iodide, and take the following pill three times a-day:—

Zinci sulphatis ʒss.
Strychniæ gr. j.
Conf. rosæ q. s. Ut fiant pilulæ xxx.

October 14.—He thought his left eye sound, and I saw no more of him till January, 1865, when he was suffering from well-marked cerebral softening. He was much changed in manner, being solemn, serious, and cautious. The left eye was weak, but the pupil was reduced to the size of the right eye. He gradually lost all power over his limbs, and became so feeble that he could not walk, and had to be carried from one room to the other. He was unable to feed himself, and passed his urine and fæces unconsciously.

A sudden attack of apoplexy closed his life in September, 1866.

No post-mortem examination was permitted.

In the following interesting case, the disease undoubtedly remains in abeyance. It clearly shows the influence of remedies to ward off dangerous symptoms, and to encourage the hope that many of these grave affections are within the control of well-directed means.

Case 2.—G. W., æt. 18, by occupation a lapidary, was admitted a patient under the care of Dr. Hawkesley, at the Margaret-street Infirmary for Consumption, on January 30, 1867. He has been ailing for more than a year, though he has continued work till a very late period. There is no history of consumption nor of insanity in the family.

Present state.—Both pupils are dilated, particularly the left which is very large; both are obedient to the stimulus of light; the left eyelid droops slightly, and the ball of the eye is drawn outwards. He cannot read with the left eye, objects appearing confused, and as though enveloped in a mist. He has had several fits, which his mother describes as "fainting fits"; they are probably epileptic. He is short of his age, very thin, and fast losing flesh and strength. He is moody, sullen, and abstracted, and never interests himself in anything. He has a quick feeble pulse, appetite good, tongue clean, very anæmic-looking. The lungs are healthy, and there is neither cough nor headache. He has perfect control over the bladder and rectum. There is probably tubercular disease or softening about the origin of the third nerve. He was ordered good diet, without stimulants, and the following draught three times a-day:—

Potassii iodidi gr. ii.
Ferri amm. citr. gr. iss.
Aquæ ad ʒj.

Fiat haustus—*ter die sumend.*

March 6.—The improvement is extraordinary, the pupils are reduced to an equal and average size, his countenance is less vacant, and he smiles and takes notice of any observation addressed to him. He looks like another person, and is much better in health.

July 6.—He has greatly improved, and his mother considers him quite well. His pupils are of medium size, and there is no apparent difference between the right and left eye. He sees objects distinctly and at the usual distance. He has no headache, and has a bright, cheerful look, which strangely contrasts with his former heavy and unmeaning aspect. He has gained much flesh, and says he feels well and strong. All medicines were omitted, and he left with instructions to apply again if any unfavourable symptoms should return.

ON DISLOCATION AND ABNORMAL MOBILITY OF JOINTS, THE RESULT OF CHRONIC RHEUMATIC ARTHRITIS.

By ROBERT ADAMS, M.D.

(Read at the Meeting of the Surgical Society of Ireland, on the 24th of April, 1868.)

(Continued from page 519.)

Such was the condition of Stafford when I published his case in my treatise on "Chronic Rheumatic Arthritis or Rheumatic Gout (1857)." Since that period up to the

present time, his chronic disease has very slowly but gradually increased, yet was he never disabled altogether from working at his bench as a carpenter, or from taking exercise daily, which he considered beneficial to his general health.

We have here to remark that a few years ago, as our patient was not able to support himself by his work, he gladly accepted of an offer made to him to be admitted as an inmate into Simpson's Hospital in this city, an asylum for those afflicted with gout and rheumatism, where he now resides. At my request he presented himself sometime ago at the Richmond Hospital, in which he had been a patient when his case was published, my colleagues and I had thus an opportunity of examining him, and of comparing his present with his former condition.

He is now about 59 years of age, his left shoulder, represented in Fig. 2, is still more deformed than it was ten years ago, when the drawing was taken, and the arm is still now more susceptible of abnormal movements than it was heretofore.

We can now readily, and without causing any pain to the patient, place the head of the humerus on the dorsum of the scapula.

There seems to be less of the synovial effusion than formerly, but now large foreign bodies can be felt in the joint.

The *right* shoulder joint, as was correctly anticipated by the patient himself some years ago, was seen now to be in an abnormal condition, both as to external appearance and susceptibility of luxation of the head of the bone, nearly similar to the left shoulder before delineated (see Fig. 2, p. 517).

Although those who have studied chronic rheumatic arthritis of the shoulder must necessarily be familiar with the ordinary anatomical characters the tendon of the biceps presents in the dead body as the result of this disease, yet the external signs by which such a change is known in the living, have not hitherto been noticed nor described by any: and to me it would appear that this case of Stafford presents us with a good illustration of the external appearances which are to be expected, when the intra-articular portion of the tendon of the biceps has been destroyed as the result of chronic rheumatic arthritis.

The relaxed condition of the left shoulder-joint in this case probably arose from analogous causes to those which presided over the same condition of the left knee-joint. The synovial effusion, the result of chronic synovitis, with which the disease in both shoulder-joints began, caused an elongation of the synovial capsules, while the loss of the intra-articular part of the long tendon of the biceps had, perhaps, in this case on the shoulder-joint an analogous effect to the loss of the crucial ligaments on the left knee (lesions which we take it for granted have occurred.) The peculiarity of appearance represented by the belly of the biceps muscle (see Fig. 2, C) depends, probably, on this muscle not having its normal origin from the glenoid cavity of the scapula, but from the humerus, at the summit of the bicipital groove, which is some inches lower down.

As to this shoulder-joint of Stafford, if it be permitted to us to speculate on the actual condition of it in a living patient, I would say that I believe that the glenoid cavity is greatly enlarged; that the capsular ligament has a wide attachment above to the coracoid process, and to the anterior margin of the coraco-acromial vault; that the condition called hydrops articuli of the synovial sac exists; that the intra-articular portion of the tendon of the biceps is absorbed altogether, so that the head of the bone can move freely, unrestrained by this tendon, in the widened capsule.

I may here observe that there is a preparation of a shoulder-joint in the museum of this college, which some years ago I considered so remarkable, and such an illustration of chronic rheumatic arthritis, as it affected in an advanced stage the shoulder-joint, that I procured a lithographic drawing of it by Conolly, and have placed it (Plate 2) in the atlas of my treatise on "Rheumatic Gout," because I believe that the case in the catalogue of the museum published 1840, page 397, is merely noticed as "a chronic disease of the shoulder." Still, I must claim the specimen as a most valuable illustration of chronic rheumatic arthritis of the shoulder-joint of long standing; and I do moreover believe that, if the symptoms which the individual to whom this joint had belonged, could have been collected they should have been just such as those we have detailed as belonging to the case of Stafford; and moreover, I have a firm persuasion, that if ever the shoulder-joints of Stafford come to be anatomically examined, they will be found to bear a remarkable similarity in all their alterations to those which the preparation on the table shows, and which have been so faithfully delineated by Conolly in the engraving already alluded to (Atlas, Plate 2).

The preparation from which this drawing is taken is preserved in the Museum of the College of Surgeons. The history of the case is unknown, and but little reference is made to it in the catalogue in which it is designated merely as "a chronic disease of the shoulder." The appearances, however, cannot be misinterpreted by any one who has studied anatomically the effects of chronic rheumatic arthritis on the articular textures of the shoulder. If we look to the bones composing the affected joint we find them bearing everywhere the stamp of this disease, not only in the eburnation of their articular surfaces, whose margins were studded round with bony growths; but we find also the clavicle and acromion bearing characteristic marks which, we do not hesitate to say, have never yet been noticed as the result of any other disease. Passing from the consideration of the bones in this specimen to that of the other structures, we find that the capsule was thickened and distended with a large quantity of synovial fluid; that, in short, here the "hydrops-articuli" existed, which we have usually seen in other joints affected with chronic rheumatic arthritis (see Treatise, Plate ix., Fig. 1, A B). And that this was the disease which, no doubt, had affected this shoulder-joint, we may further infer from the circumstances,

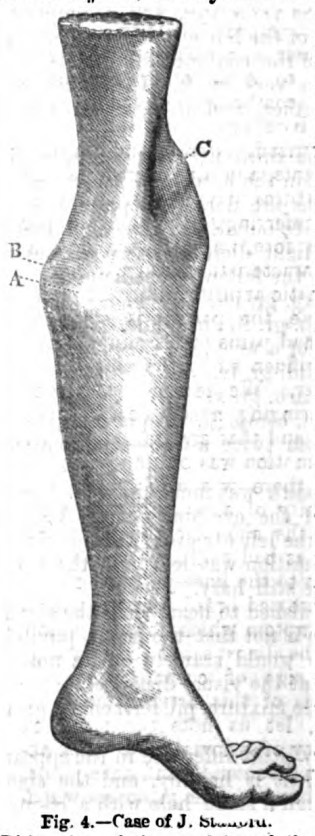

Fig. 4.—Case of J. Stafford. Dislocation of the condyles of the femur, B A, downwards and backwards to the popliteal space, and of the patella, C, with the bones of the leg upwards and forwards in front of femur.

that the glenoid ligament and the cartilage of incrustation, as well as the articular portion of the tendon of the biceps, all were removed; while, at the same time, there was a development of these "subovate bodies like melon seeds," which I have reason to believe should be classed among the morbid results exclusively belonging to chronic rheumatic arthritis (see Treatise, pages 199 to 206).

The *left knee-joint* presents now much more deformity than it did when the last account of it was given. The effusion of synovial fluid has been absorbed, permitting the prominency of the bones and tendons around the articulation to be more conspicuously seen than formerly.

This *left* lower extremity is now seen to be about two inches shorter than the right. This is the necessary result of the dislocation of the bones of the knee, and ascent of the bones of the leg in front of the femur, a lesion which is now very evident. Indeed, the ordinary signs of the dislocation of the lower extremity

of the femur backwards and downwards, while the bones of the leg and patella are drawn forwards and upwards in front of the femur, exist in the case under consideration, just as they do in the case of accidental luxation of the bones at the knee-joint, when the femur passes downwards and backwards, and the bones of the leg ascend.

In the case of accidental violence, all the ligaments, inside as well as outside the knee-joint, and some of the tendons, are suddenly ruptured, and the powerful muscles around forcibly shorten the whole limb, causing the bones of the leg in the luxation specified (and which existed here) to over-lap the lower extremity of the femur, and ascend in front of it, rendering the limb, as mentioned above, two inches shorter than the other limb.

In the case of slow chronic disease, the fibrous structures instead of being suddenly torn by violence, as above-mentioned, are slowly disintegrated by chronic disease, unaccompanied by suppuration, and when all the fibres of the ligaments are destroyed, then suddenly the surrounding muscles complete the luxation, as in the case of accident.

In the case of luxation thus produced as the effect of slow disease, we have the same shortening of the whole extremity, the same conspicuous rounded projections posteriorly into the popliteal space (see Fig. 4, A B), formed by the lower extremity of the dislocated femur, and anteriorly we have the same remarkable transverse sulcus in front of the femur, just above the patella, as we have in the accidental luxation. We can also remark in this case of Stafford the same resistance of the limb to flexion at the knee-joint; and we notice in cases of accidental luxation the same remarkable abnormal mobility in the lateral direction (see Fig. 3, page 519).

Fig. 5.—Case of J. Stafford. Dislocation at the knee the same as Fig 4; great lateral mobility.

With respect to the actual condition of the bones which enter into the composition of the knee-joint, they can in this case of J. Stafford be each respectively felt and moved, and their abnormal positions relatively to each other can be as easily comprehended as if they were bare before us; the states of the crucial, lateral, and capsular ligaments, and all the other articular textures may be easily inferred.

On referring to the clinical report of the foregoing case, we find all the characteristic features of chronic rheumatic arthritis alluded to. For example, the patient is stated to have had pains in his joints, which were influenced by the state of the weather. We learned that there were cringing noises heard in the joints, and that crepitation was felt when motion was communicated to them, there was also symmetrical deformity of almost all the joints. As to the shoulder, the right was nearly as badly affected as the left; and, as to the knee-joint, there was the increased breadth of the patella—a symptom which, in my opinion, might be almost said to be a pathognomic sign of chronic rheumatic arthritis of this articulation; and, finally, let us note the increased quantity of synovial fluid which existed in the shoulder and knee-joints, as well as the foreign bodies which could be plainly felt in both articulations.

All these point out sufficiently the case of J. Stafford to be a very remarkable one of chronic rheumatic arthritis, with abnormal mobility of the right and left shoulder, and of the left knee, amounting to complete dislocation of these three large joints in the same individual.

This is not the only case of abnormal mobility of the knee-joint I have met with, as a result of chronic rheumatic arthritis. I had under my care, in the Richmond Hospital, many years ago, a man named John Lynch (see Treatise, p. 301). In the report of the case, I observed, "that it is plain, from the history of the chronic affections of the right knee-joint of Lynch, the passive synovial swelling (hydrops articuli) by which it commenced, the stiffness and uneasiness influenced by the state of the weather, the 'cringing noises' heard on motion, &c., that this articulation presented to us an ordinary example of chronic rheumatic arthritis of the left knee, and with abnormal mobility of the articulation. It became necessary to support the weakened joint with knee-caps and by the methodical application of leather splints; but although the patient derived some advantage from these appliances, yet when he was discharged from the hospital as well as it was practicable to make him, he found himself incapable of earning his livelihood as a labourer, and was, therefore, compelled to seek an asylum in the North Union Poor-house, where he lived for four years only—his knee-joint underwent but little change, but he became affected with bladder disease, of which he died in 1842. The history of the case, and the post-mortem specimens, were laid by me before the Pathological Society of Dublin. On making the post-mortem examination, it is noted that as to the left knee, "This joint, now, as during the lifetime of the patient, presented great abnormal mobility in all directions, as if the articular surfaces had been merely held together by the integuments and tendons of the muscles. The capsular ligament was thickened, and contained but little synovia; the cartilage of incrustation had been partly removed; the lateral ligaments were elongated, and the *crucial ligaments* had lost all attachment to the tibia.

The lengthened condition of the lateral ligaments, and the unusual depth of the excavation of the internal condyle of the tibia, must have contributed somewhat to the abnormal mobility of the knee-joint noticed, but this condition, which had been so much complained of by the patient, was, I believe, principally due to the loss of the tibial attachment of the crucial ligament.

In another case I can refer to briefly here—viz., that of Mary Sheridan, æt. 56, a patient in the Richmond Hospital, Nov. 1, 1852—we find noted, that she laboured under chronic rheumatic arthritis in both her knee-joints, with great abnormal mobility. That as to her *left* knee it was remarked that the femur projected very much forwards and inwards, while the corresponding head of the tibia was partially displaced outwards and backwards towards the popliteal space, where it could be plainly felt. The leg and foot were rotated outwards, and the patella, at this side, was dislocated completely outwards, and lay on the external surface of the outer condyle of the femur.

When the limb was grasped above the ankle, and at the same time that a lateral movement of abduction was communicated to the leg, it could be made to form an abtuse angle nearly approaching a right angle with the thigh, and these movements were the source of no pain to the patient.

On examining the joint deeply, a number of foreign bodies could be felt under the fingers; on moving the joint crepitation was perceived, and loud crackling noises were distinctly audible.

We learned that in almost every particular that this chronic disease affected both the knee-joints of the patient on nearly a similar manner. She found both equally movable when she attempted to stand or walk, which she was unable to do without the aid not only of crutches, but she required also some one to support her.

She died on the 8th of November, on the 14th day after an acute attack of arthritis had supervened on the chronic affection of the right knee. On making the post-mortem examination, the capsular ligament of the right knee-joint presented a cut edge of three lines in thickness. To the

interior surface of the synovial membrane were attached patches of lymph, and traces of recent inflammation. The articular surface of the external condyle of the femur which corresponded to the external glenoid cavity of the tibia was completely polished and *eburnated*.

Left knee-joint.—The capsular ligament was of equal thickness with that of the right knee-joint; all the structures in the interior of the joint were observed to be in an hyperæmic state. The inter condyloid fossa of the femur was occupied with vascular synovial fimbriæ.

There were no traces whatever of crucial ligaments existing in the articulation—more than twenty foreign bodies were contained within its cavity. The patella was dislocated outwards, as before mentioned; it lay on the lateral aspect of the external condyle of the femur, presenting its inner margin forwards, its outer backwards, and its cutaneous surface external (see Fig. 6).

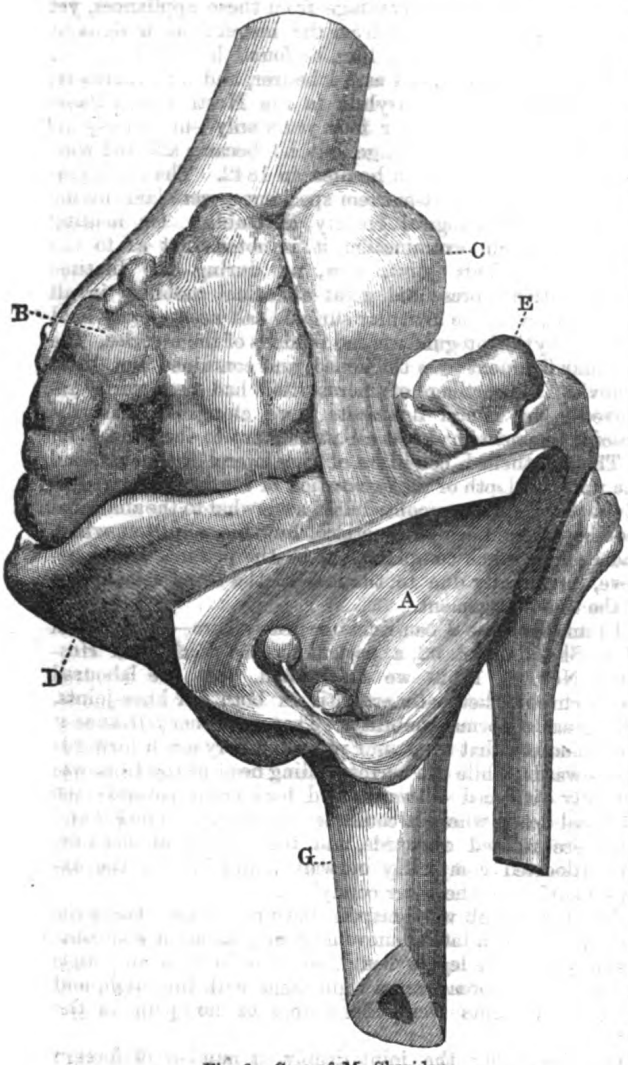

Fig. 6.—Case of M. Sheridan.
Left knee-joint. Patella, C, dislocated externally. Foreign bodies, E. B, bony nodules.

The abnormal mobility of the knees, which in this case was greater than ever I had seen it, was, I believe, principally owing to the loss from disease of the crucial ligaments.

From the foregoing considerations we are, I think, justified in arriving at the following conclusions:—

1. That besides the stiffness of the joints or articular rigidity of Cruveilhier as a symptom of chronic rheumatic arthritis, we sometimes meet with well-marked examples of this disease, in which quite an opposite symptom—namely, an *abnormal mobility* of the joints affected with this disease exists.

2. This abnormal mobility of joints noticed as an occasional result of chronic rheumatic arthritis, may amount to the degree of partial luxation only—or to that of complete luxation of the affected joints.

3. These dislocations of the bones, are attended with but little pain; even the inconvenience arising from them is inconsiderable, if only the joints of the upper extremity be affected; but, on the contrary, if the joints of the lower extremity, for example, the knees, then the inconvenience becomes so considerable, that the patient is unable to stand or walk, unless he has recourse to the use of such an appliance as that used for ten years in the remarkable case of J. Stafford (see Fig. 3, p. 519).

From observation of the foregoing and other examples of this disease, I have come to the same conclusions that Haygarth had done many years ago—namely, that "there is one painful and troublesome disease of the joints of a peculiar nature, and clearly distinguishable from all others, by symptoms manifestly different from gout, and from both acute and chronic rheumatism." This disease, "the nodosity of the joints," of Haygarth, I have ventured many years ago to call chronic rheumatic arthritis, and under such a denomination, I lay these cases this evening before the Surgical Society of Ireland.

Hospital Reports.

KING'S COLLEGE HOSPITAL.

MISCELLANEOUS CASES FROM THE OUT-PATIENT PRACTICE.

Under the care of Mr. SPENCER WATSON.

Case 1.—FATTY TUMOUR IN THE SUBMAXILLARY REGION REMOVED BY OPERATION.

A WOMAN, aged 45 years, stout and healthy-looking, came up from Woolwich for the purpose of having advice respecting a tumour lying under the jaw on the left side. It was of the size of half an orange, soft, but not fluctuating, freely moveable on the subjacent parts, and quite unattached to the skin. When the skin was made tense by pressure behind the tumour, a characteristic lobulated surface was observed, which with the other symptoms made it evident that it was of a fatty nature. It having been decided that it should be removed, this was done on April 1st, 1863, by an incision of four inches parallel with the lower border of the left lower jaw. The tumour was encysted and easily separated from the surrounding tissues.

The wound healed rapidly, and with no trouble or difficulty whatever, leaving a very slight scar.

Case 2.—A FOREIGN BODY IMPACTED IN THE FLESHY PART OF THE CHEEK FOR NINE MONTHS.

W. H., a boy of 13 years of age was brought to Mr. Watson at King's College Hospital in the early part of 1864, with a punctured wound of the left cheek, the result of an injury several weeks before. The boy had been playing with another boy, who thrust at him with a wooden foil, the point of which entered his right cheek immediately in front of the masseter, and then broke off short.

A probe passed into the wound detected a somewhat hard substance lying about half an inch from the surface in a direction obliquely backwards.

A fine pair of forceps was passed down to this hard substance, but failed to seize it. After several explorations and ineffectual attempts to extract, it seemed most probable that the foreign body, if it had ever lodged in the wound, had subsequently escaped; and that the substance felt at the bottom of the wound was the exposed bone of the lower jaw.

At the same time this was rather doubtful, as the touch indicated a somewhat softer substance than the bone in this locality.

Nine months after the exploration of this wound, which

still remained open (December, 1864), the boy was again brought with a second opening in the cheek an inch and a-half behind the first, and a free discharge of pus from it. Sticking out of this second sinus was a hard substance, which, when seized and withdrawn, proved to be a piece of wood (deal) of a little over an inch long, with a sharp point at the end that was protruding, and a rough, jagged surface at the other. This was evidently the end of the wooden foil that had been broken off short in the wound at the time of the accident.

In about a week after the extraction of this foreign body the sinuses had almost entirely healed.

Remarks.—The direction taken by this pointed piece of wood was evidently under the massæter, and between it and the bone, and therefore quite close to, but across the course of the facial artery. It was so firmly wedged in that it was very difficult to ascertain any moveability in it by means of the probe, and considering the doubtful account of the accident, it did not seem worth while to make an enlarged opening. However, the event proved that this would have been the best practice, and that it would have saved the boy many months of annoyance and pain, besides the formation of a second opening and subsequent scar.

The case resembles in some particulars a case under the care of Mr. Bowman, at Moorfields Ophthalmic Hospital, in which the pointed extremity of a hoop-stick became imbedded in a boy's orbit. In this case there was an abscess formed, and the same difficulty was experienced in detecting the foreign body. Its escape was also similar, in being the result of pathological processes, rather than of surgical skill.

The firm impaction of the piece of wood between the muscle and the bone, rendering it immoveable, and so obscuring the diagnosis, is a noticeable feature of the case, and the shape and jagged surface of the thick end of it sufficiently account for the fact that it did not make its way out of the original wound. As we often see in the case of a broken needle imbedded in muscles, it made its way to the surface with the pointed extremity forward, *i.e.*, in the direction in which its progress met with least resistance from the surrounding tissues.

Case 3.—PARTIAL DESTRUCTION OF THE PREPUCE FROM THE RAPID GROWTH OF WARTS, COMPLICATED WITH PHYMOSIS.

A man, æt. 20 years, came to the hospital on March 23rd, 1864, with the following condition:—

The glans penis was surrounded by a luxuriant crop of fleshy warts and surrounded by an œdematous and shining mass of mucous tissue, which, on close inspection, proved to be the inverted prepuce, partially amputated by a sloughing sore, but still adherent to the integument of the penis above.

It was evident that destructive inflammation, set up by the distension of the prepuce, had ended in sloughing, and the obvious treatment was to remove the redundant and useless piece of integument, and the warty growth.

This was done, and soon a healthy granulating surface was obtained.

In a very similar case that occurred to Mr. Watson, in February, 1865, the patient came with a threatening slough, and with warts protruding from the orifice of the prepuce.

He refused operation, and in the course of a fortnight sloughing took place, and the glans penis protruded through the opening in a manner similar to that of the case related above. The prepuce was slit up with great relief to the patient in this latter case.

These two cases show the importance of an early attention to the condition of phymosis. This condition may lead to various local mischiefs, and is probably, if not a cause, at any rate a promoter of warty growths in the sulcus between the glans penis and the preputial covering. If in these cases the phymosis had been remedied by an early operation, it is probable that the subsequent troubles might have been entirely avoided.

CITY OF DUBLIN HOSPITAL.

OPERATIONS PERFORMED ON THE 17TH JUNE.

By Mr. CROLY.

Case 1.—CASTRATION FOR TUBERCULAR DISEASE OF THE LEFT TESTIS.

M. C., aged 35 years, a labourer, resident in the Queen's County, was recommended to Mr. Croly for operation, and admitted into the hospital on the 13th inst.

History.—Three years ago the testicle became sore and swollen; it gradually increased in size to the present time; within the last ten days a small spot ulcerated on the front of the tumour; the patient suffers pain like the "sting of a nettle," and he also experiences a dragging feel in the region of the spermatic chord and loins. He says he never suffered from venereal disease.

Condition of patient and appearance of tumour on admission to hospital:—

His general health appears to be good. The left testis is about the size of a large orange; there are several large veins ramifying over its dependent part; the tumour is heavy; there is one small ulcerated spot on the anterior part, about the centre, and a prominent point which looks as if it would burst and form a similar ulcer; the spermatic chord feels thickened; there is no glandular enlargement observable; the right testis is of natural size.

The patient had been under surgical treatment for many months, but nothing seemed to take any effect on the size of the tumour.

Mr. Croly held a consultation with his surgical colleagues, who agreed with him as to the necessity for operative interference, in consequence of the testis being destroyed by the disease and the irritation which it continues to cause the patient, rendering him unfit to work.

The operation was accordingly performed as follows:—

The patient having been chloroformed and the hair removed, Mr. Croly grasped the testis behind and made an elliptical incision with a scalpel, commencing at the external abdominal ring and terminating at the lower part of the scrotum. A second elliptical incision of the same length was then made, which included the ulcerated part and prevented too much integument being left. The spermatic chord was carefully dissected out, and held with Ricord's forceps. The chord below the forceps was divided and the vessels tied separately; the lower part of the chord was then draw forwards and the testis dissected from the bottom of the scrotum to which it was firmly united by adhesions. In separating the organ from the septum the handle of the knife was used to avoid wounding the artery of the septum or the opposite testis. Several bleeding vessels in the scrotum were tied, the wound was left open to allow the surface to glaze, and the patient was carried to his bed.

Pieces of ice were placed in the wound, and the part left exposed to the air. In four hours, as all oozing had ceased, Mr. Croly removed some small clots of blood, and sponged the surface with carbolic acid and oil. He then brought the edges of the wound together with the interrupted iron wire sutures.

The section of the testis exhibited a well-marked example of the strumous disease.

Case 2.—REMOVAL OF AN EPULIS FROM THE SUPERIOR MAXILLA.

Mrs. C——, aged 34 years, residing in the county of Waterford, was recommended to Mr. Croly for operation.

History.—A year and a-half ago the disease commenced by a small blister inside the gum corresponding to the incisor teeth of the upper jaw. The growth increased gradually, and in six months the teeth were loosened by the tumour, and were finally extracted. She never suffered pain in the part, but the deformity caused her much annoyance.

Appearance of disease on admission into hospital:—A red,

hard tumour about the size of a small walnut is observed occupying the position of the four central teeth, it is not painful to the touch, nor does it bleed when manipulated. It extends upwards on the gum anteriorly, and bulges out the upper lip, and covers posteriorly the alveolar process, and approaches to the hard palate.

The operation was performed as follows:—The patient was fixed in a chair, her head resting against the breast of an assistant. Mr. Croly commenced by making an incision with a stout scalpel through the gum at each side of the tumour, and having inserted the blade of a fine saw, next divided the alveolar process through each wound, he then with a stout cutting pliers removed the "epulis," including a portion of the alveolar process. The operation was performed with rapidity, and there was very little hæmorrhage. The patient was directed to keep pieces of ice constantly in her mouth.

We learned on inquiry that these cases have progressed very favourably since operation.

RICHMOND SURGICAL HOSPITAL.

Cases under the care of Mr. WILLIAM STOKES.

(Reported by Mr. JAMES ROSS.)

STRUMOUS DISEASE OF THE ANKLE-JOINT, OF TWO YEARS' DURATION: SYME'S AMPUTATION AT THE ANKLE-JOINT: RECOVERY.

AMPUTATION at the ankle-joint, as first suggested and practised by Professor Syme, has long and justly been considered one of the greatest modern improvements in practical operative surgery. The following case adds another to the long list of those which have shown so unquestionably the great importance of this procedure, and there are the particulars of it will, it is hoped, prove of some interest to those earnestly engaged in the advance of surgical art.

Bridget C., æt. 23, a native of the South of Ireland, was admitted into the Richmond Hospital on the 27th of last March, having been recommended to Mr. Stokes by Dr. Lyons. The patient is of a delicate strumous temperament, and from long-continued suffering and many sleepless nights, had the careworn and anxious expression of face seen so invariably in those who are the subjects of protracted and painful disease. The patient states that about two years ago, without any assignable cause, the joint became affected. She does not remember ever having got any blow on or near the joint, nor does she remember ever having even sprained the ankle. About twelve months after the joint first became affected, the pain and swelling in it became so aggravated as to render walking or standing no longer possible. She was then recommended by her friends to consult a so-called "bone-setter" of considerable local celebrity, who informed her that in his opinion the bones of the ankle-joint were displaced, and that an attempt should be made at once to restore them to their natural situation. Accordingly the joint was subjected to what, from the description, must have been very violent extension and twisting, in order to effect the reduction of the supposed luxation. After this violent, and, in truth, atrocious treatment, the previously existing symptoms became much aggravated, the pain especially, which never allowed her a single night's rest. Any attempt to walk or use the joint was now wholly out of the question. Things remained in this way for several months, and then, as the symptoms were evidently not diminishing in intensity, she determined to seek for surgical advice in Dublin.

On examination, the enlargement, which was very considerable, was found principally over the astragalus. There was exquisite tenderness over the joint, especially over its inner side. The slightest motion of the joint gave extreme pain. At night she suffered much from shooting and stinging pains, which gave her much distress. There were no sinuses, or any evidence of abscess-formations. The anterior portion of the foot was healthy. There were no hectical symptoms, cough, or diarrhœa, and her appetite was good. Looking at the history of the case, the urgency of the symptoms, and the length of time they had lasted, it was clear the case was one demanding prompt operative interference, and one of two procedures was contemplated by Mr. Stokes—namely, either resection of the ankle-joint, or amputation, in the manner first recommended and practised by Professor Syme. Looking, however, at the debilitated condition of the patient, and the strong probability of the disease not being sufficiently localised in any particular part of the tarsus—circumstances which would militate strongly against a successful resection of the joint, amputation was deemed preferable, and accordingly determined on. The operation was accordingly proposed to the patient, who willingly acceded to it.

On the 2nd of April the operation was performed precisely as recommended by Professor Syme. Mr. Stokes was anxious, in arresting the hæmorrhage in this case, to give the method of torsion a fair trial, but the result was not at all as satisfactory as he would have desired. Very considerable difficulty was experienced, especially in arresting the hæmorrhage from an interoseous artery, which, however, had eventually to be secured by a ligature. After the operation the wound was simply dressed with dry sharpie. On examination of the foot, the disease was found to be more extensive than, from the previous symptoms and appearances, was at all anticipated. All the bones of the tarsus were more or less diseased, the morbid process, however, being specially evident in the astragalus, the greater portion of which was completely softened and diseased. A very remarkable condition was found on the articular surface of the tibia, namely, an adventitious ridge or bony prominence, which extended horizontally across the centre of the articular portion of the bone, and which seemed to have become developed in order to replace the body of the astragalus, which, from disease, had become softened and flattened. The cartilage of incrustation on the articular surfaces of the tibia and astragalus were eroded and ulcerated, but the carious process in both the tibia and fibula appeared to be extremely limited, and when the section of these bones was made, the oseous structure appeared perfectly normal.

In some clinical observations to the class of the hospital, suggested by this case, Mr. Stokes could not avoid congratulating himself that amputation, and not resection, had been resorted to in this case; and remarked that notwithstanding the arguments so ably and forcibly put by Mr. Hancock, the distinguished Surgeon of Charing-cross Hospital, in favour of resection in cases of caries of the ankle-joint, he, Mr. Stokes, could not avoid coming to the conclusion, that although, doubtless, the operation of resection was indicated before all others in many cases of injuries of the ankle, such as, for example, gun-shot injuries, as shewn by the remarkable results obtained by Professor Langenbeck during the Schleswig-Holstein war of 1864, and in many cases of disease obviously originating from injury; yet that, in caries of the ankle-joint, in the ordinary acceptation of the term, the morbid process is seldom, if ever, so localized as to justify resection; and in such cases, therefore, amputation at the ankle-joint is in every way the most satisfactory, and most scientific, operative procedure that can be had recourse to.

It would be tedious, as well as unnecessary, to give the daily progress of this case. On May 2, exactly one month after the operation, it is noticed in the case-book that "during past week case has progressed without a bad symptom. Wound is nearly healed. Promises to be a most successful result." A fortnight after this date the wound had completely healed. The patient's health has in every way signally improved. She has gained flesh, eats, drinks, and sleeps well, and is cheerful and happy. Every fine day she goes out in a basket carriage, and is driven about in the grounds of the hospital.

LORD OVERSTONE has accepted the office of President of Charing-cross Hospital, rendered vacant by the death of the late Marquis of Salisbury.

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The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JUNE 24, 1868.

THE MEDICAL CANDIDATE FOR EDINBURGH AND ST. ANDREWS.

DURING the last week most of the leading journals have announced that Dr. PROSSER JAMES has accepted an invitation which has been presented to him to come forward as a candidate for the representation of these Universities in the new House of Commons. We are able to inform our readers that the requisition was presented some months ago, and that Dr. PROSSER JAMES has the support not only of some of the most eminent members of our profession, but also the confidence of a large section of the liberal party, and the cordial good-will of influential statesmen.

The *Scotsman* of the 13th announced the candidature in the following terms :—

"A requisition, signed by professional and other gentlemen, has been presented to Dr. Prosser James, of the London Hospital. Besides the ordinary committee for promoting the election of Dr. Prosser James, a Medical Committee has been formed, consisting of members of the profession who desire to see the medical element in the House of Commons increased, and who consider Dr. Prosser James a suitable candidate."

The *Observer* of the 14th spoke of his chances as "most favourable." The *Daily News* and several other papers informed their readers that he was a "staunch liberal in medical as well as in general politics." The *Times* and some other papers merely announced the acceptance of the invitation. The *Star*, after the announcement, proceeded to comment as follows :—

"Dr. James properly recognises the fact that the requisitionists look to him as a medical politician to represent the practical interests of the profession, because he has for many years both by pen and tongue been an active advocate for reforms in his profession. Ten years ago he presented his plans and vindicated his policy before Lord Palmerston, and almost stood alone in opposing the proposition that the Medical Council should consist of delegates from the existing corporations, because, as he very properly alleged, such a system would not secure representation to the profession at large, but would perpetuate the existing abuses. Dr. James advocates that the members and graduates of each licensing body should elect their representative to the Medical Council ; he is in favour of a radical reform of the Poor-law medical system. In general politics Dr. James is broadly Liberal ; opposed to religious endowments and religious tests. A number of eminent gentlemen have already pledged themselves to support Dr. James's candidature."

In order to furnish our readers with the fullest particulars, we append the requisition and the reply :—

REQUISITION TO

PROSSER JAMES, ESQ., M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE AT THE LONDON HOSPITAL, &C., &C.

SIR,—It seems to us highly desirable that several medical men should obtain seats in the new Parliament, and that it is particularly fitting that University Constituencies which contain so large a proportion of medical electors should be thus represented.

The great interest you have for many years evinced in political matters, especially in those great social questions in which medical men are particularly qualified to reason ; the intense desire you have shown to elevate the profession of medicine and secure its members their just rights and influence, and the considerable sacrifice you have made to forward these objects ; the active part you have taken for so many years in the general as well as in the medical press, in which you have consistently advocated the most liberal principles ; the time you have devoted to the study of jurisprudence as a whole, as well as to the medical branch which you teach at the London Hospital. and which includes all the great questions of hygiene and state medicine, point you out in our opinion as eminently qualified to represent the medical profession in Parliament.

Besides this, as a gentleman in actual practice residing in London throughout the year, and still employing your leisure hours in promoting objects of general usefulness, you must be conversant with a variety of topics of the highest political importance, as well as with the wants of your professional brethren, and the actual state of opinion amongst their several ranks, and well qualified to serve them.

We are convinced also that in you the cause of the general Practitioner. and of the Poor-law Medical Officer, would have a warm friend and advocate, while medical and sanitary reform in general would have a suitable representative.

We therefore beg most respectfully to request that you will allow yourself to be put in nomination as a candidate in the liberal interest for the honour of representing the two ancient Universities of Edinburgh and St. Andrews, and to assure you that it will afford us great pleasure to use every effort to secure your return.—We have the honour to be, Sir, &c.

[REPLY.]

GENTLEMEN,—In responding to the requisition you have done me the honour to make, of allowing myself to be nominated as a candidate for the honour of representing the Universities of Edinburgh and St. Andrews in Parliament, I cannot conceal from myself the fact, that it is as a representative of the medical profession that you invite me to come forward, and that you are influenced to do so by the attention I have for many years bestowed on questions influencing the position of that profession, rather than to those legal and literary studies to which you allude as additional qualifications for the position you are pleased to consider me worthy to attain.

This being so, I cannot do better than commence my statement—and I presume you look for some statement of principles in reply to your invitation—by reference to professional politics.

More than ten years ago, I had the honour of laying before the late Lord Palmerston, then first minister of the Crown, my views as to the subject of medical reform, my objections to some of the plans proposed, and the outline of a scheme for preparing a measure beneficial and satisfactory alike to the profession and the public. Since then, the General Medical Council has come into existence, but I think it would be well to look back to that scheme as a commencement of this review.

It will be remembered that in the bill brought forward by Mr. Headlam, it was proposed to entrust the government of the profession to a new council, to be composed of a delegate from each of the existing corporations. This idea was accepted by many admirers of the representative system, but I urged that such a body would represent, instead of the medical profession, the conflicting interests of the rival corporations, and as such would be likely to become the arena of unseemly contention. Fully alive to this, Lord Elcho proposed to place the nomination of the members of the council entirely in the hands of the Crown advisers. To this I objected that such a board, although it might prove a good working committee, could scarcely hope to gain the confidence of the profession, while it would inevitably excite the jealousy of all the corporations.

Adopting most heartily the principle of representation, the

scheme I submitted to Lord Palmerston was neither more nor less than an adaptation of the representative plan to existing institutions.

My proposal was that the appointment of the members of the Medical Council should be confided—not to the governing officials of the corporations, but to the members of the profession connected with them ; in fact, that the representative of each body should be elected by those who held its medical diploma, the votes being given by signature. Thus the Members of the Colleges of Physicians or Surgeons, would have elected the representatives of those bodies, while the medical graduates of the Universities would have exercised the franchise of those institutions. A Council thus elected would have fairly represented the bulk of the profession, and would, I believe, have been more beneficial to the public than the one that was actually created.

The existing Council is the result of a compromise. It consists of deputies from the small governing bodies of the corporations, with an infusion of nominees of the Crown. Already a cry for its reform has been raised. An agitation for the representation of the working practitioner in the Council which rules and taxes him has been commenced. The demand is so reasonable and just, that I have not hesitated to give it such influence as I possess—believing it may prove a good starting point ; but I am thoroughly convinced that the scheme I sketched so long ago would have been far the best, and, I think, medical reformers should even now endeavour to bring it into operation.

Thus the true plan of medical reform, in my opinion, is to insist on an extension of the franchise in the election of members of the Medical Council—our Medical Parliament. For example, instead of allowing the ruling bodies of the Colleges of Physicians and Surgeons to nominate the Members of Council, the members of these Colleges should put forth their claims for a voice in the election of their representatives. So with the Universities ; the Medical Graduates should insist on similar rights.

In this way too several battles may be waged at once. The members of the several corporations should put forth their claims simultaneously. It is scarcely to be believed that in the present day all the ruling committees will refuse to listen to so just a claim, and as soon as one body shall have accomplished so necessary a reform, it will be but a question of time for the others. The Medical Council will soon become what it ought to be, a representative Parliament of the Medical Profession, and before it will be a career to which, as it now exists, it can never aspire.

And now, with regard to the duties of a Reformed Council. In my first plan I laid it down as an axiom that what has been called the "one portal" system should be adopted—that every practitioner should enter the profession by a *minimum* examination. The only reason for the State interfering with professional qualifications, is to provide an adequate supply of practitioners, to whose care the people may safely entrust themselves.

The State should give to qualified persons a license to practice every department of the profession. The Corporations and Universities could confer their distinctions on those legally authorized practitioners who sought them. To carry out the plan I proposed that three joint boards of the existing examining bodies of the three kingdoms respectively, should hold the examinations for the State license, and I held that it should be insisted on, that no medical degree or diploma should be conferred by any University or Corporation on any person who had not been duly authorized to practice all branches of the art of healing, by one of these joint boards.

The experiment of the Medical Council has proved that this plan may be still further simplified. In place of three coordinate boards for the three kingdoms, one only would suffice, and when the existing Council shall have been reformed in the manner I have pointed out, there will be no reason why it should not undertake the examinations for the State License. It is proved that the Council can meet in London as a whole. It would be as easy to meet alternately in Edinburgh and Dublin, and thus save Scotch and Irish candidates the necessity of travelling to London. Under such a system the general practitioners of the country would have uniform education, pass through similar examinations, and possess the same privileges ; the State would do all that could fairly be expected from it, and the Colleges and Universities would not be effaced, nor have their rights much restricted, as they would only be deprived of the power to grant licenses to compete with that of the State.

Then would begin the day of competition upwards. The diploma of each body would be esteemed at its true worth, and sought accordingly. The corporations might, therefore, be left to make their own regulations—the first only being required to be that every candidate had previously obtained the State License. Membership of a College would then be sought as conferring particular privileges, leading to particular offices in the College, or proving the possession of special knowledge. So with University degrees.

Some higher diplomas would possibly imply superior general education. Not unlikely, candidates for the fellowship of colleges or the doctorship in medicine would be required to possess a degree in arts; but all such regulations could safely be left to the corporations concerned.

Such is an outline of my present views respecting the constitution and duties of the Medical Council. They are the natural outgrowth of the plan I was the first to put forward and have for a long time advocated.

You rightly calculate on my warmest sympathy with the general practitioner and the overworked but ill-paid Poor-law medical officer. These last I wish to see adequately remunerated for their arduous duties, and I am inclined to think they should be so paid, as servants of the State, that they might be required to renounce all private practice, and devote their whole time to the poor. The State would thus secure able and willing servants to spend their lives in its service.

Inspection might then easily be carried out by skilled medical inspectors, acting much in the same way as the Lunacy Commissioners now do in another department. We might thus hope to see our Poor-law system redeemed from some of its worst vices.

I must not forget, however, that your invitation implies more than the confidence of my professional brethren. Such a constituency as that of two universities must be deeply interested in all educational and social questions, as well as those of general politics.

Let me add, then, that my medical politics are but a portion of the broadly-liberal principles which I hold in relation to all other questions.

Education I should be glad to foster and promote throughout the land. Like others, I have been much struck with the necessity for extending primary education, though I cannot profess myself so staggered by recent revelations, nor so mistrustful of the men to whom the franchise has been extended, as to be ready to call in the policeman to force the children of unwilling parents to school. The plan of examining children at a certain age, to see if they can read and write, seems to me at least to savour more of the spirit and love of freedom.

Sanitary questions, like all others relating to State medicine, form, as you justly observe, a part of the subject I have the honour to teach at the London Hospital, and are therefore not likely to be forgotten by me.

I should gladly see all religious tests removed from candidates for university honours. I have always regarded the establishment of the church of the minority in Ireland as an injustice. A religion unable to maintain itself I do not believe in, nor do I think those religionists very earnest who are unwilling to support the faith they profess. From this point of view the Irish Church seems to me as indefensible as the more paltry, but still irritating exaction of church-rates in England.

If asked to what purpose I would apply the church revenues, I reply that such funds are national property, and as such Parliament has a right to dispose of them as seems best for the interests of the State. In the case of the Irish Church property, I think it should be restricted to the benefit of Ireland, and perhaps its most natural use would be in the promotion of education.

Questions respecting parliamentary reform may be considered set at rest for a time, until we see the working of the Reform Acts, but I may say that I am by no means inclined to look upon those acts as closing all discussion with the exploded formula "finality."

Without adopting all the opinions of anyone, and asking, therefore, to be permitted to consider all questions as an unpledged, independent Liberal, I am happy to accede to your request to come forward as a *medical* candidate for the honour of representing you in Parliament.

With the greatest respect, and many thanks for the confidence you have shown me, I am, gentlemen, your faithful servant,

PROSSER JAMES.

18, Dover-street, Piccadilly,
June 1, 1868.

THE REPRESENTATION OF THE SCOTTISH UNIVERSITIES.

More than a year ago, in a special supplement to The Medical Press and Circular, we discussed the subject of university representation in reference to the Medical Profession, and the prospect of the Scotch Universities returning a medical candidate to the House of Commons. We have also, before and since, again and again, expressed our earnest desire to see the medical element in Parliament increased. We happen to know that our views on this point are shared, not only by the bulk of the Profession, but by a large number of politicians, and by more than one of the leading statesmen of the time.

We are therefore glad to see that the opportunity will be afforded to some of the constituencies to elect a medical representative. We mentioned a year ago that medical graduates would be likely to come forward, and Dr. Prosser James has at length declared himself ready to contest the seat bestowed on Edinburgh and St. Andrews, as will be seen in our present issue.

For Glasgow and Aberdeen we were the first to indicate Dr. Andrew Clark as a suitable candidate, and now our medical contemporaries are endorsing our views; and although it may be premature to say positively that he will meet the advances, we believe that the medical graduates have only to express a decisive wish, and he will respond.

We may repeat, in reference to this, that Dr. Andrew Clark is well-known in political as well as in medical circles, and has always exhibited a deep interest in those questions which the Profession desires to bring before Parliament. He is a graduate of Aberdeen, and would unite local with medical influence. He is an active, scientific worker in his profession, a fluent speaker, and otherwise well qualified to serve his brethren. We hope the medical graduates will exert themselves to bring him forward.

REPRESENTATION OF THE QUEEN'S UNIVERSITY IN IRELAND.

The Graduates of the Queen's University have been actively pressing on the Government their claims to Parliamentary representation under the New Reform Act, but, as the redistribution of seats under the Irish Bill has been postponed to the new Parliament, their claim has been, of course, adjourned with it. In anticipation of the possibility of their success an influential deputation headed by the Bishop of Killaloe was received by Mr. Disraeli last week, and laid their case before him. The medical section of the Graduates was represented by Dr. J. S. Hughes, Professor of Surgery and Dr. Mapother, of Anatomy and Physiology in the Royal College of Surgeons in Ireland, Dr. Roe, and others. Notwithstanding the withdrawal of the redistribution scheme two efforts were made in the House of Commons on Thursday last to carry the object. Mr. Chichester Fortescue moved a clause to the effect that the two members now returned by Trinity College should in future be returned by the joint constituencies of that and the Queen's University, basing his argument on the fact that the constituency of the University of Dublin was relatively much smaller than that of Oxford or Cambridge:—

"By a Parliamentary return it appeared that the constituency of the University of Oxford consisted of 4190 voters, being one member to 2095 electors. The University of Cambridge consisted of 5440, being one member to 2720 voters. The University of Dublin consisted of only 1870 electors, or one member to 935 voters. This was within nine of the number of the voters of Dublin University in 1834, when two members, instead of one, were given to the University. In the London University in 1866, the number of graduates of Convocation standing was 1700. Neither of the Irish Universities could be said in the main to be, like those of Oxford and Cambridge, Universities on the collegiate footing. The Queen's Colleges were not, in the Oxford sense, colleges for residence. The total number of undergraduates in the University of Dublin in the year 1851-2 was 1217. Of these only 118 resided in the college; 581 more lived in Dublin and its suburbs, and the remainder, 518, attended lectures elsewhere. Thus, the University of Dublin, as far as it performed the functions of a collegiate University like Oxford and Cambridge, provided for the discipline and residence of only 118 of its undergraduates, while with respect to 518 it was on the footing of the Queen's Colleges or the Scotch Universities; and in regard to 581, it was upon the footing of London University, giving degrees solely on the passing of a certain stated examination, and not requiring either attendance at lectures or residence in college."

The Earl of Mayo in opposing the motion pointed out that—

"The amendment proposed to join for the purposes of representation two bodies that were essentially distinct, and which had different opinions upon almost every subject; and the combination of them could produce nothing but discord. The strongest objection to the proposal was that it was strongly objected to by both the bodies concerned. He had always entertained the opinion that if it were possible it would be desirable to give Parliamentary representation to the Queen's University, and he would have proposed to give it in the redistribution scheme which had been submitted to the House but for the pressing claims of the large populations. In any future scheme the claims of the Queen's University must be considered. It would now give a constituency of 880, but in a few years it was expected the increase of members would give a large, independent constituency. The present arrangements with regard to the qualifications for voters for the Dublin University were not altogether satisfactory. The voter must be an M.A., and pay £5 for registration and £9, 10s. on taking the degree, so that it cost £15 to become a voter of the University. Hence the disparity between the roll of Masters and that of electors, the latter containing 1870 names, and the former 1496 additional. He was empowered by the authorities of the University to say he should be prepared, when the Registration Bill was before the House, to make an alteration in the system which had hitherto prevailed at Dublin. He would propose a clause to give the franchise to every M.A. on taking his degree, without requiring as a condition the payment of any fee."

Mr. Gregory energetically supported the proposal, and accused Trinity College of returning as its representatives gentlemen—

"One of whom was a steady opponent of every measure which had for its object civil and religious liberty ("No!"); and *the other was the law adviser of a Tory Government—the fourth in succession.* They were all honourable men; but if the University of Dublin rested its claims to representation upon the fact that it always sent here a mouth-piece of the Irish Church and a law officer of a Tory Government, the sooner that confederation was broken up the better."

By a majority of 10 in a house of 356 the proposal was rejected. At a later period of the evening, Mr. Fawcett proposed a clause to disfranchise Portarlington, and give the seat to the Queen's University, but the suggestion was opposed by the Chief Secretary on the ground that it

should form part of the scheme for the redistribution of seats which has been postponed until the new Parliament. Mr. FAWCETT, however, in spite of the advice of several hon. members refused to withdraw his motion, and was defeated by a large majority.

Lord MAYO's objection to the proposal for the fusion of the representation of the two Universities appears to us to be sensible and well-grounded. The interests to be represented in each are as unconnected as the objects and feelings of rivals can be, and Mr. FORTESCUE failed to show either the necessity for diluting the constituency of Trinity College, or the justice of putting off the graduates of the Queen's University with the moiety of two members who could never accurately represent the views of either constituency.

NOTES ON THE ABYSSINIANS.

No. II.

THE ceremonial observed at Births among this ancient people, we give on the authority of Mr. Mansfield Parkyns.

At the time of parturition the woman is seated nearly upright on two stones, slightly separated from each other. She is supported by a female friend, who holds her shoulders, and constantly invokes the aid of the Blessed Virgin.

The feet of the patient are supported on a chair or table, and are there held by another female attendant who, from time to time, rubs her feet and the calves of her legs which form an angle of about eighty degrees with her body. As soon as the shoulders of the child appear, the delivery is assisted by the women, who receive the infant into a flat wicker basket filled with flour. The child is forthwith washed in cold water and perfumed, and a woman then moulds the head and the different features by pressing them with her fingers, in order to make them handsome; while a man pokes a lance into the infant's mouth—if a male—to make him courageous. This he does through the window, for no man would enter the chamber, which is socially and religiously regarded as unclean. Simultaneously with this performance a little boy cuts the throat of a fowl before the newly born babe, and the women shout with exultation, repeating the cry thrice if the infant be a female, and twelve times in the case of a male. This done, they rush into the court which surrounds the house "singing and dancing like so many bacchanals; and woe betide the man who is unlucky enough to be caught by them; for they surround him, and by their yelling, singing, dancing, and screaming, literaly stupify him; nor do they let him go till he has promised them a ransom, either of beer or money, or some other kind of present."

Three days after the birth the women go through a similar ceremony on the occasion of carrying the mother's clothes to a brook to be washed; every male friend then captured on the road is treated as just described. The women all feed on porridge, which has been the mother's food since the day of her delivery, and the flour of which she had previously prepared with her own hands. The child is usually suckled by any woman who may happen to have milk, until the mother can take it herself; and butter, and sometimes honey and milk, are stuffed into its mouth. The curious combination of Circumcision and Baptism is thus described in chapter xxix:—

"After eight days the child is circumcised, be it male or female, and on the tenth day, if it be a boy, or on the twentieth day, if a girl, the priests come with all the pomp and ceremony of the Church—crosses, incense, &c., and purify the house, sprinkling it with holy water. On the day of the child's birth the priest makes his calculation as to when it is to be baptized, informing the father (who probably cannot read, or, if he can, does not perhaps possess an almanac) of the particular day on which the ceremony must take place—forty days after the birth of a boy, and eighty after that of a girl. On inquiring why so long a time is allowed to elapse, and whether it might not be curtailed in case of sickness, I was informed that it might be shortened if absolutely necessary, and that the reason of the delay in ordinary cases is, that according to their traditions our first parents did not receive the Holy Spirit until they had been created that time respectively. The Abyssinians are, however, very particular that the exact day should be kept; so much so, that if the father miscalculates the day and is not forthcoming, he is subjected to a heavy penance. The priest would probably order him a year's fasting; but a trifling sum as a present to the Church (which means in fact a present to the priest) would readily induce him to commute the period to a month or two. It sometimes happens that the priest himself miscalculates, and assigns a wrong day; in which case he has to undergo the penance that he would have inflicted on the father.

"The parties having arrived at the Church, the priest receives the child from the godfather, places his hand on its head, and pours on it a little water. He then takes oil, and signs the cross on the child's head, hands, breast, and knees, and concludes by tying round its neck a plaited cord of red, blue, and white silk, as a sign of Christianity. (This cord is afterwards exchanged for the blue one usually worn.) The priest then returns the infant to its godfather, exhorting him to support and educate it, and look after its welfare, spiritual and temporal, as though it were his own child. This the sponsor promises to do; but pays no more attention to his promise than do our good godfathers and godmothers in England; only, should he die childless, his godson is considered the lawful heir to his property. After the conclusion of the ceremony the priest returns with the whole party to the father's house, where a great feast is prepared in honour of the occasion."

Marriages take place at a very early age, eight or nine in the case of girls, and boys when a little older. The ceremonies observed on these occasions are fashioned on the Oriental rather than on the Western model. They are, however, mostly civil marriages. Church marriages are rarely solemnized save between parties who, having been first civilly married, and having subsequently lived together happily till the decline of life, begin to feel that they could not suit themselves better, and so determine to consecrate the marriage by going to church and receiving the sacrament. In this event the bond is indissoluble; while the civil union may be dissolved on short notice, and for almost any reason. The parties concerned need only express a wish to separate, and a division of children and property takes place. The boys, if any, commonly go to the father, and the girls to the mother. This done, they are at liberty to contract a second marriage. "It is not an uncommon thing [writes Mr. Parkyns] for a man thus separated from his wife to maintain her in a house near his own, furnish her with the necessary means of subsistence for herself and family, and continue apparently in perfect friendship with her, but never approaching her as a husband, while at the same time he takes another bride in her place."

Notes on Current Topics.

The Medical Council.

THIS body meets to-day at the London College of Physicians, and many important questions will be discussed during its sittings. We shall, as usual, furnish our readers with an account of the proceedings of its ruling body, and we sincerely hope that those of its members who are ready to advocate an essential reform of its constitution, will not hesitate to push their views. It has become evident that a reform of its constitution is the one great question of medical reform on which all others depend, and no time can be better spent than in discussing the various schemes that have been proposed by medical politicians since its last meeting.

Royal College of Surgeons of England.

The coming election of councillors continues to produce an increasing excitement amongst the Fellows of this College, and we sincerely trust that a large number will record their votes in favour of progress. The names of the competitors have already appeared, and their merits been canvassed in our columns.

A special meeting of Council is called for the 25th, to elect an examiner in place of Mr. Lake. Either Mr. Lane, Mr. Busk, or Mr. Hancock are presumedly to be elected. The examinership in Dental is also to be settled the same day, and it is thought that this post will be conferred on Professor Partridge.

The Great Poor-Law Meeting in London.

The aggregate meeting of London and Provincial Poor-law Medical Officers comes off this afternoon at two o'clock at the Freemason's Tavern, under the Presidency of Mr. Clement, M.P., for Shrewsbury, a distinguished member of the Medico-Political Association. Our interest in our Poor-law Medical brethren is well-known, and has never yet been questioned. The medical students of London have been invited to attend, and are likely to give a hearty support to their friends. It is probable that several leading members of the Medico-Political Association may also be present.

The Jenner Banquet.

This great demonstration of respect was undoubtedly an unusual success. The mere report of the proceedings gives no idea of the feeling that prevailed, and we therefore the less regret that our space forbids an extended account of it. It is known to not a few that Sir William Jenner, besides his handwork in scientific medicine, has devoted much energy to the social and political questions which affect the profession, and exhibited interest in the state of the Poor-law system.

Had the graduates of the London University selected him as a medical candidate for Parliamentary honours, the mere politicians who aspire to represent that constituency, might have found many of those on whom they counted supporting the medical baronet.

Rebuilding of the Medical Hospital of the Royal Infirmary of Edinburgh.

The Committee have issued a circular appeal for funds for this object, in which they say, "There are two hospitals in connection with the Royal Infirmary—the Medical and the Surgical. The latter is an excellent one; but the former is not adapted to the requirements of modern times, and is altogether so unsuitable for a public hospital, that it is necessary to have it rebuilt. In particular, it may be mentioned that the wards are much too confined; that the ceilings, which ought to be at least 15 feet high, are only 11 feet; and that the proximity of the buildings in front of the University renders it impossible to secure the free air and ventilation which are desirable. Besides, the hospital, notwithstanding a large annual outlay for *repairs*, is in many respects falling into decay. The total estimated cost is £100,000. Of that sum upwards of £58,000 has already been subscribed.

The Lahore Medical School.

The Lahore Medical School completed its eighth anniversary on the 15th of April, and the report of its satisfactory condition, as an institution for the education of natives in medicine, will be read with interest. It was founded by Sir Robert Montgomery in 1860, and has educated two classes of students—the higher grade educated in English and the lower in Hindustani. There are 25 students in the former, and 75 in the latter class. Most of the students receive scholarships and stipends from government, but within the last few years a certain number of the lower class has consisted of students paid by local funds from different districts, and bound to return to their native places to practice.

The importance of a supply of indigenous medical men is becoming daily greater, now that sanitary science is occupying so much attention in the Punjab and in all other civilized countries; for it is to these men, to men educated at this institution, that we must mainly look to carry out those sanitary regulations by which we hope eventually to prolong human life, to an extent to which it has never yet been done by all our improvements in the treatment of disease. It is therefore satisfactory to find that, as the importance of the medical school increases, its popularity certainly does not diminish.

One very important step has been taken during the last few months; after years of the most urgent representation to Government, and the most vexatious delays and disappointments, the foundation of a commodious hospital has at last been laid in Lahore.

Representation of the Medical Practitioner on the Medical Council.

We understand that this question is likely to come forcibly under the notice of the Medical Council at its approaching meeting, and the debate on it, bearing directly on the interests of the Council, the Licensing Corporations, and the profession at large, cannot but be exciting. The rapid progress which this question has made in public opinion, and the existence of the Medico-Political Association, which has adopted it as its special object, are almost entirely due to the exertions of the *Medical Mirror* pursued energetically against much apathy and opposition. We believe that both Sir Dominic Corrigan and Dr. Andrew Wood may probably bring the matter before the Council, but each has in view a different course to be pursued. Sir Dominic Corrigan entertains the opinion that the representatives of the practitioner should take the places on the Council of the Crown nominees, all of whom, with the exception of Dr. Rumsey, are personally interested in the support of some medical corporation, and cannot be expected, as they were intended, to adjust by an unbiassed vote the balance of contending interests in the Council. In fact, their function in the Council is to dilute the corporation interests, and we think it not disrespectful to these gentlemen to say that their close connection with corporations, and their ingrained prejudices in one or other direction, makes it impossible for them to fulfil their *rôle*. The Medico-Political Association, however, seeing the great difficulty of effecting this interchange of elected for nominated representatives, would seek to add a number of new members to those now in office, but the profession has acquired already a sad experience of the Council deliberations, and cannot see that redundant loquacity and scanty performances will be amended by increasing the number of talkers. Without doubt the principle of direct elective representation of the profession has obtained a hold on the professional mind, but we fear that its realisation, either by

the means proposed by Sir Dominic Corrigan or the Association, is far away.

The Representation of the University of Dublin in the Medical Council.

THE rumours which we noticed some months since, to the effect that the present representative of the University would retire from that position, and would be replaced by the Rev. Professor Haughton, Medical Registrar to the Medical School, have not been realised, although the anticipations had sufficient foundation. Professor Apjohn still occupies the position of representative, which his conduct in the Council deliberations proves that he so eminently merits.

The Dublin City Prisons.

THE right of appointment to the office of Physician to the City of Dublin Prisons has been decisively declared by the Court of Queen's Bench, last week, and the pretension of the Corporation to the patronage reversed by a most explicit judgment. In a former notice of the matter (MEDICAL PRESS AND CIRCULAR, November 6, 1867), we gave the following history of the election, which we reprint, as the facts may probably have passed out of the recollection of our readers :—

"The Corporation of the City of Dublin, in dealing with the medical patronage within their functions, perpetuated, last week, the system of mal-administration and jobbery which has made their name scandalous even in the rank of civic governing bodies. It will be remembered that by the death of the late Dr. Banon, the duty of appointing temporarily to the Surgeoncy of the City of Dublin Prisons became theirs. The election of an officer in permanence to this post, has been always the function of the grand jury, which is a body of decidedly Conservative leanings, and it is provided that in case of a vacancy the corporation, whose ultra-liberal tendencies are well-known, shall appoint a temporary Medical Officer pending the meeting of the grand jury. On the death of the late Dr. Banon, a gentleman was elected who was perfectly eligible in every respect, and none the less so because he was closely allied to one of the members of the Town Council. On the approach of the meeting of the grand jury, it transpired that that body was not likely, from its different political tendencies, to accept the gentleman selected, whereupon a special meeting of the Corporation was held last week at eleven o'clock in the forenoon of the same day, when the grand jury was to meet at two, and the section of the corporation assembled, in spite of the remonstrance of some members, reappointed the same gentleman. At a later hour the grand jury elected to the same office Dr. Byrne, who, we believe, is compelled by this manœuvre to proceed by means of a *quo warranto* to establish the right of appointment to the grand jury. Meanwhile the corporation candidate remains in office, and the funds of the city are squandered in useless and vexatious litigation."

We rejoice in the discomfiture of the Corporation, not in any respect on account of the individual who may occupy the office, but because the defeat of a job is always a public advantage.

We learn from the public papers that the Town Council were before and since strongly advised by their law mentors that they had not the shadow of a claim to the power of appointment, and their determination nevertheless to proceed, at the public expense, to the perpetration of an indecent family job, makes it a matter of congratulation that the attempt should be defeated as it has been.

Vegetarianism.

THE anti-flesh-eating brotherhood have always made it a strong point in favour of their theories that the vegetable-eating inhabitants of India who, as a matter of religious scruple never touch meat enjoy very excellent health and strength, and therefore, this class of diet must be declared to be capable of supporting life and its functions in the highest perfection. Unfortunately for this argument, it appears from recent statistical returns of the officers of health for Bombay, that the persons who restrict themselves entirely to vegetable diet suffer from a much greater mortality than their omnivorous fellows. There are 816,562 inhabitants in Bombay, of whom 61,994 do not eat meat, and, as a rule, this class are of a comparatively high rank in their own society, and enjoy greater opportunities for careful and even luxurious living than the flesh-eating castes. Nevertheless their mortality reaches the proportion of 2·05 per cent., while the general death-rate of the whole population is only 1·89 per cent.

Oxygenation of the Blood.

THE influence which the oxygenation of the blood exercises on the vital functions has recently been demonstrated in a very extraordinary manner by Mr. Claude Bernard. He injected the arteries of the neck with oxygenised blood, immediately after decapitation, with the view of ascertaining how far the phenomena of death were dependant on the withdrawal of the supply.

He found that warmth and muscular sensibility returned, and even that perception returned to the eye, which moved when the hand was passed before it.

New Procedures in Ovariotomy.

WE are informed, on the authority of Dr. Gavin, of the Boston Hospital, U.S., than an operation at which he assisted, was lately performed there, in which two new procedures were adopted, which would seem to be deserving of the attention of operators. In order to allow of the immediate closure of the abdominal wound, and yet to permit of the subsequent removal of the ligatures of the pedicle, they were passed through the uterus and vagina, so that they were readily come at afterwards. With the object, also, of avoiding the exosmosis, which may occur after the washing of the peritoneal cavity with plain water and the exudation of heavier fluids through the intestinal coats, the water was replaced by serum taken from the calf. We have not learned any particulars as to the success of this treatment.

Cool and Healthy Rooms.

PROFESSOR ATTFIELD, in a letter to the *Times* of the 19th inst., on this subject writes :—"In these hot days a cool apartment is a great luxury—the secret consists not in letting in cool air, but in keeping out *hot* air, and recommends that windows should be closed on the sunny side of the house, and when the external atmosphere is hotter than that in the room.

"If the atmosphere of the room be impure, let it be renewed—hot air is less injurious than bad air, but, as a rule, rooms should be kept closed as much as possible until after sundown, or till the air outside is cooler than that inside."

Nitrous Oxide.

THE new anæsthetic is making its way rapidly in the estimation of the profession, and is likely, in spite of the well-grounded physiological objections to its use, to supplant chloroform in dental surgery, and in operations requiring only a brief insensibility to pain.

The agent is undoubtedly a simple suffocant, and if pushed beyond a certain point would cause death, but its advocates insist that nothing but gross negligence would admit of its over administration, and point to the overwhelming (if accurate) statement, that more than 27,000 persons have taken it in America without a fatal result. In the American hospitals in which it is used, it is prepared on the large scale and stored in gas-holders, and as it is not absorbed by water it may be kept an indefinite time; it is admitted by a gas-pipe, and administered to the patient by a large mouth-piece, with separate ingress and egress tubes. A piece of soft wood is placed between the back-teeth to keep the mouth from closing. About five gallons of the gas is necessary to cause anæsthesia and as, in the extensive practice of an hospital, the amount used would necessarily be very large, and the nitrate of ammonia from which it is prepared costs 2s. per lb., an apparatus has been arranged by which the expired gas is passed over hydrate of lime to remove the water and carbonic acid, and it may then be used over again. In the London hospitals a large bag is temporarily used to contain the supply, and one of the administrators has devised a sort of garment resembling a college-gown, which, being inflated with the gas, makes the supply more easily applicable. The patient sits in the operating chair, and takes the mouth-piece between his teeth. He is directed to inspire, and in a few instants the inspirations become more rapid, total insensibility, slight lividity of the face, stertorous breathing, and sometimes throat rattles appear. At that instant the mouth-piece is plucked out and the operation proceeded with. If prolonged anæsthesia be required, the patient must be allowed to recover, and again immediately anæsthetised, and thus insensibility has been kept up for twenty minutes while amputation of the thigh was performed. If air be admitted with the gas, the anæsthesia is not developed, but hilarity and talkativeness, the well-known phenomena of "laughing-gas," are produced, while on the other hand if the administration were not stopped at the proper moment death from asphyxia would undoubtedly ensue. The after-results are in most cases absolutely *nil*. In a minute and a-half, or less, the patient stands up and walks out of the operating theatre as well as ever he was in his life.

It certainly requires moral courage in a surgeon to take the responsibility of suffocating patients into a fit condition for the knife, nevertheless, the practice may now be accepted as an established one, and with the painful experiences of chloroform which we have had, we cannot truly say, even in our present state of knowledge, that a greater risk is incurred by the administrator of the new agent.

There is a renewal of the movement to affiliate licentiates of the London Apothecaries' Society with the College of Physicians. Many would like to be admitted to the College license *ad eundem*. This might be liberal of the Fellows, but then where would the members be. A very much more extended promotion to the Fellowship could alone do justice to the members.

Dr. W. A. Miller has received the honorary degree of LL.D. from the University of Oxford.

The distribution of prizes at Westminster Hospital, took place May 28.

The election of a Chancellor to the University of Edinburgh excites great interest. The names of many Liberals are seen in the list of supporters of the Lord-Justice General, indicating either preference for a local candidate, or a curious indifference to the leader of the Liberal party. Mr. Gladstone's supporters are active, and some Conservatives will vote for him.

Mr. Holmes has resigned the surgeoncy to the Children's Hospital. Mr. Thomas Smith succeeds him.

The Queen has become a subscriber of £100 a-year to the Hants County Hospital, and commanded it to have the prefix "Royal" to its name.

Correspondence.

THE CARMICHAEL PRIZES.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Sir,—Having vainly competed upon a former occasion, I naturally feel interested in the essays to which these prizes have been awarded as being superior to any of the others submitted for adjudication. As regards the first essay, to say nothing of the disqualification and bad taste of a member of the body to whom the adjudication was left competing—which was doubtless known to all his colleagues—but taking the essay upon its own merits, I greatly doubt whether the general opinion of those among the profession who may read it will justify the award of the judges.

It is well-known that for many years past much of my attention has been directed to the subject of foreign and English medical organisation, and my chief object in competing was the expectation that should my essay be approved of, and published under the sanction of an influential medical body, it would receive more attention and be likely to be more serviceable than if emanating from myself individually. There was no definite programme or special conditions imposed upon the writers of the essays, though certain suggestions were made by the testator as to the topics to which their attention ought to be more especially directed. My essay (occupying about 400 folio pages of manuscript) entered fully into the consideration of the various parts of the question, more than fulfilling the requirements specified, and though it was very favourably spoken of in the report made by the adjudicators upon the respective essays, it was stated not to have fulfilled all the conditions of the programme.

On subsequently visiting Dublin I learnt that it had been proposed to Sir (then Mr.) J. R. Wilde to compete for the prize, and that he had declined so doing; and thinking that the award was only likely to be made in favour of a competitor in some way connected with the Dublin institutions or of one who would write in their interest—in short, that the affair would be a mere job—I withdrew my essay, declining to compete on any subsequent occasion should such present itself.

As however, during some years, nothing further was done in the matter, and there appeared little probability of any *bona fide* competition I wrote to the President of the Dublin College of Surgeons to remind the council that competitors had been induced to take the trouble of composing their essays in the just expectation that the prizes would be impartially awarded as directed; stating at the same time that parts of my essay had been published at my own cost, and had been favourably reviewed in medical and other journals in England, America, France, and Germany,* but that I was not disposed to incur further expense by publishing the remaining portions, treating of medical studies, hospital elections, examinations for diplomas, private practice, irregular practice, and quackery, &c.; and that I had reason to believe the real cause of the rejection of my essay to be that among the propositions I made for improving the state of the profession was that of substituting for the numerous existing licensing bodies three central examining boards in London, Edinburgh, and Dublin (which proposition as tending to deprive the Dublin College as well as the other corporations of the licensing power was not likely to be ap-

* The Medical Profession in Great Britain and Ireland: Part 1. Foreign Medical Organisation; Part 2. British Medical Organisation. Churchill (now out of print).

proved of by the partial judges forming part of the council of the college),* and I submitted to the council, as no further steps had been taken with regard to the bequest, whether some compensation from that fund ought not to be made to those competitors whose essays had been favourably reported of by the adjudicators, and who had made their best efforts to respond to the wishes of the testator in improving the state of the profession. To this letter I received an answer to the effect that the council were not empowered to comply with my suggestion. I entertain no doubt that an impartial appreciation of the approved essays will show that great injustice has been perpetrated in the award of these prizes, and that they are in nowise calculated to conduce to the improvement of the profession or to promote the accomplishment of the earnest desire of the testator to "render it a more respectable and efficient body."
—Your obedient servant,

June 13, 1868. EDWIN LEE.

ATTEMPTED INTERFERENCE WITH FREEDOM OF EDUCATION IN FRANCE.

THE Senate on the 23rd of May, by a great majority in two successive votes, adopted the order of the day upon the petition relative to accusations directed against materialism in the Paris school and the demand upon the freedom of higher class education.

This result, which was foreseen, had been brought about by a long and brilliant discussion which, we greatly regret, our limited space does not permit us to quote at length, nor fully summarise.

The general secretary of l'Association Générale des Médecins de France has had the honour to see a passage of his eulogy of M. Rayer quoted in this discussion.

The Parisian faculty is freed from a great anxiety: has suffered no censure from the Senate, nor has it to fear, for the present at least, the surrender of free education.

The episcopal thunders have passed harmlessly over its head and, what is still more important, the freedom of science still exists.

The *L'Union Medicale* rejoices greatly at this result. Tolerance for all opinions, liberty for all researches, respect for all doctrines, these are the principles it has always defended, and of which the triumph is henceforth assured.

Free from serious pre-occupations, the limits being determined that teaching can attain to and should not overstep, the faculty can quietly hear and discuss the objections of another order than those which were brought before the Senate ("les objections d'un autor ordre que celni qui a été porté au Sénat"), and which may be directed against its teachings. The right of examining and criticising we do not give up or diminish, and this we shall show when need be.

As to purely medical doctrines the only position we should at present occupy, there exists such diversity and so great a departure from the traditional principles of medicine, that we may here advert to the recent exhibition of the opinions held by some professors of the school of Paris ("Explosion nouvelle de ces opinions professérs par quelques professeurs de l'Ecole de Paris"), and we think that this inquiry will not be unattended with benefit.—*L'Union Medicale.*

Medical News.

THE PUBLIC HEALTH.—It appears from the return made by the Registrar-General that in the week that ended on Saturday, June 13, 5093 births, and 2709 deaths were registered in London and in thirteen other large towns of the United Kingdom. The annual rate of mortality was 22 per 1000 persons living. In London the births of 1175 boys and 1098 girls, in all 2273 children, were registered in the week. In the corresponding weeks of ten years (1858-67) the average number, corrected for increase of population, is 2038. The deaths registered in London during the week were 1195. It was the twenty-fourth week of the year; and the average number of deaths for that week is, with a correction for increase of population, 1263. The deaths in the present return are less by 73 than the estimated number. The deaths from zymotic diseases were 287, the corrected average number being 318. Ten deaths from small-pox, 60 from measles, 22 from scarlatina, 8 from diphtheria, 70 from whooping-cough, 40 from fever, 31 from diarrhœa, and 3 from choleraic diarrhœa were registered. The deaths of 3 persons from delirium tremens, of 7 infants from syphilis, of 4 children from burns or scalds, of 8 persons from drowning, of 5 infants from suffocation, of 2 persons who committed suicide, and of 2 children who were killed by horses or carriages in the streets, were registered.

ST. PANCRAS.—Dr. Hillier, medical-officer of health for the parish of St. Pancras, has presented his annual report to the Vestry, in which he congratulated them on a much lower death-rate having prevailed in the parish during the past year than for several years past. The death-rate in the parish during the last year was 2·154 per cent., while in the whole of London it was 2·298 per cent., and in the northern districts, of which St. Pancras was one, it was 2·319. The mortality of the parish was, therefore, lower than that of the rest of London, or of that part of London in which St. Pancras is situated. He further states:—"I cannot help thinking that the sanitary work done in the houses of the poor during the cholera epidemic of 1866, and the attention paid to the sewers as regards flushing and deodorizing both in 1866 and 1867 have had some considerable influence in keeping down the death-rate. I believe, also, that good has been done by the demolition of some of the more crowded streets in Somerstown, Agar-town, and near the Old St. Pancras-road by the Midland Railway Company. Although very serious inconveniences have been suffered by the poor who were ejected, the houses into which they have removed, though many of them are ill-adapted to receive them, yet have for the most part the advantage of being built further apart so as to allow of free access of air both behind and before."

THE PRINCIPALSHIP OF EDINBURGH UNIVERSITY.—At a meeting held by the Curators of the University of Edinburgh it was resolved to postpone the election of a Principal until the 6th of July.

EDINBURGH UNIVERSITY.—The Rev. Dr. Calderwood, of the United Presbyterian Church of Glasgow, has been elected to the Chair of Moral Philosophy. The election of Principal has been postponed until the 6th of July.

THE UNIVERSITY OF GLASGOW.—We regret to announce the death of Dr. G. W. Arnott, Professor of Botany in this University, after a tedious illness.

UNIVERSITIES OF IRELAND.—A Parliamentary paper recently published shows that of the numbers of persons qualified to form a Parliamentary constituency in Irish Universities 904 persons connected with the Queen's University, and 7715 with the University of Dublin, would be qualified to register. These numbers are calculated upon the supposition that the franchise is to be founded upon all degrees, including in the Queen's University the degrees of B.A. and M.D, as well as diplomas in engineering, and in the University of Dublin all degrees upwards from the B.A. degree.

THE CHAIR OF MIDWIFERY AT GLASGOW.—As in the case of the two other candidates for the Chair of Midwifery at Glasgow, a testimonial, signed by his former pupils, in favour of his appointment to the vacancy, has been presented to Dr. Simpson.

There are at present in the Carmarthen Workhouse ten old people aged respectively 95, 88, 88, 84, 82, 81, 81, 80, 74, and 74 years.

* This proposition was made and warmly advocated by Mr Carmichael in a speech which he delivered on the occasion of his presiding over the annual meeting of the Medical Association for Ireland. Adverting to Mr. Warburton's bill, then before Parliament, he observed, "If it does not lay the axe to the root of the evil, and deprive the several corporations of their licensing power, they may as well allow the present system of misrule to continue unmolested."

END OF VOLUME V.

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